Executive Summary

The School Board of Broward County, Florida, is pleased to submit this document describing Broward's Educational Technology Plan (ETP). The district projects a Five-Year Technology Capital Budget in order to coordinate with the Facilities Five-Year Capital Work Plan, factoring in items such as new school construction and repositioning portables. Although budgets are projected for five years, they require annual approval by the School Board. As such, the ETP is a "living" document that will be continuously revised and responsive to changing conditions and emerging technologies .

The framework for the ETP is provided by the District's Five-Year Strategic Plan, the Florida Sterling Criteria, and the National Educational Technology Plan. The Sterling Criteria for organizational performance excellence is the district's school reform model. Communication is a primary focus of the Sterling Process, and district policy establishes communications standards. Part of the communications standards is a Public Engagement Model, which was followed to engage stakeholders in the development of the ETP. The framework and the process focus on the common goal of improved student achievement.

This document is divided into eleven sections as specified by the Florida Department of Education (DOE) to satisfy both DOE and e-Rate requirements:

1. Mission Statement
2. General Introduction/Background
3. Needs Assessment/Goals
4. Funding Plan
5. Technology Acquisition Plan
6. Access
7. User Support Plan
8. Professional Development Plan
9. Program Evaluation
10. E-Rate Addendum
11. EETT Addendum

Section One contains the Mission Statement, the Vision Statement, the Broward Educational Technology Plan Goals and Objectives, and District Technology Plan Overview. Broward's Technology Plan aligns with the District's Strategic Plan and the National Educational Technology Plan.

Section Two contains the district profile, including demographics and major technology initiatives; the planning process used to develop the technology plan; the district's Public Engagement model; and a summary of the district's adult literacy services and the number of adults served.

Section Three documents the district's comprehensive needs analysis. The district concluded a district-wide technology assessment and planning process through an engagement with an outside consultant, the Center for Educational Leadership in Technology (CELT). This needs analysis resulted in a five-year IT Blueprint which prioritizes major technology projects with district-wide impact. To implement and monitor the IT Blueprint, a Project Management Office (PMO) was established. All technology projects are prioritized and tracked through an online project management system which includes a formal process from project charter, through tracking and documentation, and closeout. The PMO provides reporting for the short-term district technology goals and the long-term district technology goals.

Section Four contains the funding plan identifying the major funding sources including the Education Technology Services (ETS) department Capital Budget, ETS Operating Budget, e-Rate projections, and PSTF planned allocation.

Section Five contains the district's technology acquisition plan including the purchasing policy, standards process, the technology "refresh" program, and the district's software site licensing.

Section Six contains Broward's Policies specific to equitable access of instructional and classroom materials; the district's Technology Use Policy 5306; technology initiatives for Exceptional Student Education (ESE); the district's distance learning program; Broward Virtual Education (BVEd) which is the district's online school, the district's filtering process; and the district's CIPA compliance statement.

Section Seven contains the User Support plan including the District's Technology Liaison Contact (TLC) program, Technology Support Certification Program (TSCP), the Network Operations Center (NOC), district software site licensing, and the equipment warranty policy and support programs.

Section Eight contains the Professional Development including strategies for increased technology use in the classroom, school leadership training, and technical assistance.

Section Nine contains the program evaluation including the Research Department's guidance for program evaluation, the three-year Research calendar, and a summary of the annual school climate report which includes student, teacher, and parent survey of technology use.

Addendum Ten provides a matrix that describes how the district's e-rate planning process aligns with the Educational Technology Plan.

Addendum Eleven describes the alignment of Enhancing Education through Technology (EETT) funding with the Educational Technology Plan.

Section I -- Mission and Vision

INTRODUCTION

The Information Technology Blueprint is the “live” document steering The School Board of Broward County’s Education Technology Plan. Section I of the IT Blueprint – Vision/Introduction, Subsection 2.7—Technology in Support of the District Strategic Plan Outcomes, states:

“It is notable that the word "technology" is used only once in the fifteen objectives articulated in the district strategic plan, but is the enabler toward attaining to some degree the outcomes of all the objectives. As outlined in the fifteen sections of the Information Technology Blueprint, technology resources, solutions, and techniques provide the "means" to achieve these highly prioritized "ends" or outcomes.

Goal 1 – All students will achieve at their highest potential . The research and best practices outlined in Sections II, III, and IV provide numerous approaches for schools to select technology-based resources with best practice instructional strategies to improve student achievement for the unique learners in their learning community.

Goal 2–All schools will have equitable resources . The technology enhanced learning environments detailed in Section IV, along with the communications infrastructure in Section XI hold the potential to ensure that each child has access to the learning resources appropriate to their individual needs. The CD/IM system currently under development, and described in Section II, will enable teachers to track and monitor the growth of individual students against district and state curriculum standards and then prescribe instructional strategies available via the network to keep each child moving forward toward curricular benchmarks and milestones.

Goal 3–All operations of the school system will demonstrate best business practices while supporting student achievement. The implementation of technology based systems and solutions that will be efficient, track accountability, ensure maximum value for district dollars spent, and enable staff to work more productively, many of which are described in Section X, will better support student achievement and school needs. Goal 4–All stakeholders will work together to build a better school system . To work together and be actively involved clear, convenient, and open channels of communication must exist. Broward County Public Schools (BCPS) seeks to engage parents, community members, businesses and organizations in the growth and development of the district. These communication and access strategies are outlined in Section XII of the Information Technology Blueprint.”

1.1

Promoting the effective use of telecommunications and information technology to implement the Sunshine State Standards and improve the performance of all students.

STRATEGIC PLAN 2010

Our Vision:

Broward County Public Schools-providing the highest quality education for all students.

Our Mission:

The School Board of Broward County, Florida is dedicated to meeting the educational needs of all students in a safe learning environment.

Our Core Values:

- Student Focus
- Communication, Trust, Teamwork
- Benchmark the Best
- Excellence
- Integrity and Ethics

Our Beliefs:

- Learning must take place at home, in school, and in the community.
- Learning is an important aspect of a student's life.
- The District must provide educational opportunities from school readiness through adult education.
- We are accountable for improving student achievement.
- All students will learn when their individual needs are met.
- All students will be taught how to learn.
- We must prepare all students for a knowledge-based, technologically rich, and culturally diverse 21st century.
- We must provide a safe and secure environment, which is essential for teaching and learning.
- Partnerships, which include parents, community and businesses, enhance student achievement with stakeholder involvement.
- All individuals will be treated with respect and dignity.
- Stakeholder involvement is a valuable tool for decision-making.
- Professional staff development enhances a quality school.
- The School Board is committed to assuring that schools promote cultural diversity and reinforce the positive tenets of character education in a democratic society.

Goal I: All students will achieve at their highest potential.

Obj. 1.1 By 2014, 100% of students in Grades 1-10 will perform on grade level in reading, writing, and math as measured by standardized tests and required by the No Child Left Behind Act and the A+ Plan.

Obj. 1.2 The proportion of students in high school who participate and perform* in higher level courses (Advanced Placement, Dual Enrollment and/or Honors) will increase to 20% by 2010.

Obj. 1.3 The proportion of minority students in high school who participate and perform* in higher level courses (Advanced Placement, Dual Enrollment and/or Honors) will increase 7% by 2010.

Obj. 1.4 The graduation rate in Broward high schools will meet or exceed the state average by 2010.

Obj. 1.5 By 2010, the average SAT score for the District will meet or exceed the national average without reducing the percentage of students taking the test.

Goal II: All schools will have equitable resources.

Obj. 2.1 All classes will meet state class size mandates to enhance the teaching and learning environment by 2010 as required by Florida Constitution Amendment Nine.

Obj. 2.2 By 2006, and ongoing, all core subject area instructional staff will be highly qualified in accordance with state and federal guidelines.

Obj. 2.3 By 2006, and ongoing, 100% of instructional personnel and students will use technology tools and strategies that ensure universal access to a standards-based curriculum.

Obj. 2.4 By 2010, an average of 80% of respondents on an annual survey will indicate they feel secure at school.

Goal III: All operations of the school system will demonstrate best business practices while supporting student achievement.

Obj. 3.1 By 2010, all employees, including support service personnel, will demonstrate proficiency in continuous improvement by completion of a Plan, Do, Study, Act (PDSA) project as measured by the number of departments presenting evidence of using PDSA via competing for the Broward County Public Schools Quality Award and/or the state Sterling Award or documentation of an improved process at their place of work.

Obj. 3.2 By 2010, all Priority One and Priority Two (those that could pose a threat to life and/or safety) Work Orders will be scheduled within 24 hours of receipt and resolved according to an agreed timetable.

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Obj. 3.4 By 2010, Support Services Operations will meet or be the "Best in Class" benchmark as related to Cost Efficiency, Quality, and Customer Service for comparable organizations.

Goal IV: All stakeholders will work together to build a better school system.

Obj. 4.1 By 2010, customer satisfaction with Broward County Public Schools will have increased to an average of 90% as measured by the Annual Customer Survey administered by BCPS and Coordinating Council of Broward survey.

Obj. 4.2 By 2010, Broward County Public Schools will actively participate with other governmental /non profit/business organizations in strategic planning initiatives** such as Broward Alliance, Coordinating Council of Broward, Children's Services Council, Vision Broward and others that will result in value added outcomes as measured by legislative action and successful implementation of public policy programs that benefit the cooperating entities.

*Grade C or higher in AP Exam, receive a grade of C or higher in Dual Enrollment and be eligible for college credit, receive a grade of C or higher in Honors Courses

**Strategic planning activities are defined as those activities that can affect the fulfillment of the mission, vision, objectives of the organizations.

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BROWARD COUNTY PUBLIC SCHOOLS

MISSION STATEMENT

Implement and support technologies that provide a high quality, safe learning environment allowing all learners to achieve at their highest potential.

VISION STATEMENT

The School Board of Broward County adheres to the belief that technology should play a vital role in meeting the needs of the broad range of abilities, disabilities, cultural backgrounds, ethnic populations, and learning styles represented in district schools. To assure that technology shall play a predominant role, our mission is to provide guidance for appropriate technology utilization and integration into the curriculum, as well as infusion into school/district administration and management through the following goals and objectives.

GOALS AND OBJECTIVES

GOAL 1: All students and educators will have equitable and effective access to technology during and beyond the school day.

Objectives

1.1 Connect all classrooms to the network and provide classroom technology to meet the current district standard.

1.1.1. Identify baseline inventory of currently deployed technology at each site.

1.1.2. Conduct annual needs assessment of site-based technology.

1.1.3. Develop a refresh plan including innovative budgetary considerations.

1.1.4. Thoroughly evaluate existing technology infrastructure and access to broadband to determine current capacities and explore ways to ensure its reliability..

1.2 Enable easy, seamless, secure connection to the network from all access points.

1.2.1. Establish guidelines for access.

1.2.1.1. Define access points.

1.2.1.2. Define mobility within network.

1.2.1.3. Define mobile non-connected users.

1.2.1.4.

1.2.2. Develop wireless standards.

1.2.3. Enhance remote access solutions.

1.2.4. Enhance security measures and procedures.

1.3 Establish and annually review technology standards.

1.3.1. Investigate new emerging technologies.

1.3.2. Review adaptive and special needs requirements.

1.4 Establish a business continuance plan to insure continued access to educational and administrative resources.

1.4.1. Engage all stakeholders.

1.4.2. List and prioritize mission critical applications and data.

1.4.3. Develop and test disaster recovery plan.

1.4.4. Develop and test contingency plans for applications/hardware/network.

1.4.5. Develop and test backup facilities (redundant).

1.5 Create and maintain public/private (community) partnerships to enhance the effective access to technology during and beyond the school day.

1.5.1. Identify national and local partners.

1.5.2. Work with partners to develop strategies and criteria.

1.5.3. Annually reassess the effectiveness of partnership programs.

1.6 Continue to evaluate and improve the infrastructure to enhance the learning environment and accommodate growth (refresh).

1.6.1. Develop technology deployment plan.

1.6.2. Identify and apply for external funding sources.

1.6.3. Identify alternative financing.

1.6.4. Conduct formative evaluation each year to monitor implementation of District's Technology Plan.

1.6.5. Continually improve planning process based on evaluation results.

GOAL 2: In order to enhance the impact of technology on student performance, all educators will improve mastery and integration of educational technology.

Objectives

2.1 Develop and deliver standards-based staff development.

2.1.1. Continue to conduct technology needs assessments to identify training requirements.

2.1.2. Provide technology component of educational leadership development for principals and district administrators.

2.1.3. Provide a technology training program and continuing inservice for all staff.

2.1.4. Implement technology integration training as part of mandated staff development.

2.1.5. Provide opportunities for district technology staff, vendors, and teachers to communicate about technology resources and needs.

2.1.6. Incorporate alternative delivery methods for technology staff development.

2.1.6.1. Support the use of on-line/web-based staff development to create "24/7" training opportunities

2.1.7. Assist in the implementation of a standards-based set of tools to increase teacher productivity.

2.2 Utilize successful schools and programs as "best practice models."

2.2.1. Designate "models" and reference their roadmap to technology integration.

2.2.2. Create a "no-barriers" school environment wherein the principal facilitates the acquisition and use of technology.

2.2.3. Provide adequate on-site support for technology integration.

2.2.4. Train a cadre of instructional specialists to support school-based technology integration.

2.2.5. Continue to align the School Improvement Plan with technology integration.

2.3 Develop partnerships for staff development opportunities.

2.3.1. Create community resource centers.

2.3.2. Enhance parent involvement.

2.3.3. Develop an "e-mentoring" project for Broward schools.

2.4. Ensure the district provides every opportunity for staff to improve their technical proficiency and ability to integrate the technology into the curriculum

2.4.1. Explore and implement system of rewards and incentives for exceptional achievement.

2.5. Enable every teacher to participate in e-learning training.

GOAL 3: Provide appropriate and timely technical support to achieve effective integration of educational technology.

Objectives

3.1. Provide full-time Instructional Technology Specialist (ITS) and Technical Support Specialist (TSS) positions at each site

3.1.1. Define roles and responsibilities for each position.

3.1.2. Develop formula to determine ratio of support staff – to – technology and end-users at each site.

3.1.3. Allocate funding for positions.

3.1.4. Develop and provide technology certification programs and continuing staff development in support of these positions.

3.1.5. Monitor, assess and modify the positions as necessary.

3.2 Utilize and continue to enhance centralized support system.

3.2.1. Strengthen district's technical support staff.

3.2.2. Establish and implement a knowledge management system.

3.2.3. Continuously improve technical support process throughout the district.

3.2.4. Monitor, assess, and modify the support system as necessary.

3.3. Establish a plan to integrate data systems so that administrators and educators have the information they need to increase efficiency and improve student learning.

3.4. Use data from both administrative and instructional systems to understand relationships between decisions, allocation of resources and student achievement.

GOAL 4: All students will become proficient users of technology.

Objectives

4.1 Establish student technology competency standards and use to measure student fluency.

4.1.1. Review existing standards for K-12 students.

4.1.2. Research post-secondary and business technology competency requirements.

4.1.3. Adopt state and national student technology competency standards.

4.1.4. Perform periodic reviews of competency standards and modify as necessary.

4.1.5. Identify and create viable assessment and evaluation tools for use.

4.1.6. Provide assessment and evaluation tools, with training, for implementation and use by schools.

4.2 Provide students with technology literacy skills.

4.2.1. Ensure that teachers and students are adequately trained in the use of online content.

4.2.2. Encourage ubiquitous access to computers and connectivity for each student.

4.2.3. Ensure the inclusion of technology skill sets in curriculum framework at appropriate grade levels.

4.2.4. Provide instruction in problem solving, decision making and research skills using technology such as use of Boolean search strategies, search engines, O/S search features, sorting and narrowing skills.

4.2.4.1. Ensure the inclusion of skill sets for life-long learning.

4.2.4. Provide students with instruction in the use of communication tools such as email, newsgroups, chat rooms and threaded discussions.

4.2.4.1. Provide access and training for instructional staff in use of these tools as teaching strategies for the delivery of curriculum and assessment of student achievement.

4.2.5. Provide students with instruction in the use of productivity/ creativity tools such as word processing, spreadsheet, database, graphics, and browsers.

4.2.5.1. Provide training for instructional staff in the use of these tools as teaching strategies for the delivery of curriculum and assessment of student achievement.

4.2.5.2. Provide training for school based technical staff in the use of these tools to assure that they can assist instructional staff when they use these tools in the classroom.

4.3. Reduce the ratio of end users to computers and ensure currency of technologies.

4.3.1. Continue to procure new hardware and software.

4.3.2. Ensure the networks provide adequate connectivity.

4.3.3. Consider the costs and benefits of online content, aligned with rigorous state academic standards, as part of a systemic approach to creating resources for students to customize learning to their individual needs.

4.4. Provide every student access to e-learning

Section II—General Introduction/Background

INTRODUCTION

For the 2004/05 school year, Broward County Public Schools (BCPS) had a total of 271,691 students ranging from Pre-K to 12th grade. The district has 137 elementary, 41 middle, and 28 high schools—including an on-line school. There are six adult/vocational schools, ten centers and 29 charter schools totaling 251 school sites. There are 40,451 (10.7%) exceptional student education children --30,668 students with special needs and 9,763 gifted students—and more than 200,000 adult students.

The district's 2004-2005 Budget was $4.14 billion with $1.93 billion in the General Budget and $1.80 billion in the Capital Budget. The district spends an average of $5,175 per pupil; whereas the average State per pupil expenditure is $5,217. 36.6% of our students qualify for free/reduced price meals. Student population is diverse (161 countries--56 languages.) Immigrants from Central and South America as well as the Caribbean contribute to the unprecedented growth in our student population. Personnel figures indicate 30,000 full-time and 9,450 part-time employees. Approximately 17,000 full-time employees are instructional and 13,000 are clerical/support staff.

Our "Continuous Quality Improvement" process adheres to the Sterling Quality Principles, a process that is data-driven and people oriented. Continuous Quality is the basis for the District's Strategic Plan 2010. Departments and schools also adhere and support the District's Strategic Plan and thus also follow Sterling Quality Principles. The Information Technology Blueprint (IT Blueprint), which "drives" all the technology processes, standards, training and implementation of technology within BCPS is a planning model approved by the US Department of Education. The IT Blueprint also maps technology in support of the district's Strategic Plan.

Collaborative partnerships with other literacy providers such as Broward County libraries and community-based agencies are in place. The providers are connected through the Literacy Coalition of Broward County (http://www.browardliteracy.com) and Region V Adult Literacy Center (http://www.pbcliteracy.org/regionv.htm). DETA (Digital Education Teacher Academy) is a joint venture between Florida Atlantic University (FAU) and BCPS. Additionally, BCPS Learning Resources Department fosters adherence to standards such as the "Information Literacy Standards for Student Learning" and the "National Educational Technology Standards for Students". BCPS Customer Staff Development Services offers on-line "Best Practices of Integrating Technology into Teaching and Learning", as part of a project funded by a grant from the Broad Foundation and the American Productivity and Quality Center (APQC).

2.1
District Profile

General Introduction/Background

PART I – BACKGROUND AND DEMOGRAPHIC DATA

DISTRICT

1. Total number of students (PreK-12)* enrolled in the district: 271,339

2. Number of schools in the district:

_____	Pre-K
137	Elementary schools
41	Middle schools
_____	Junior high schools
28	High schools
_____	Magnet schools
4	Alternative campus (centers)
6	Adult/Vocational
29	Charter
251	TOTAL*

*Note: 47 Magnet schools are included in school total.

3. District Per pupil Expenditure: $5175. Average State Per Pupil Expenditure: $5217.
(expenditures are for 2002-03 school year – 2003-04 year report will be released in 3/05)

4. Racial/Ethnic composition of The students in the district:

0.3%	Native America
3.0%	Asian
36%	Black or African American
23.1%	Hispanic
0%	Native Hawaiian/Pacific Islander
35.5%	White
2.1%	Multi-racial
100%	Total

5. Student turnover, or mobility rate for the district: N/A

(This rate should include the total number of students who transferred to or from different schools between October 1 and the end of the school year, divided by the total number of students in the school as of October 1, multiplied by 100.)

The mobility rate is available for years prior to 200-2001. The state replaced this indicator with the stability rate beginning in 2000-2001. The stability rate is the percentage of students from the October

membership count who are still present in the second semester (February count). District and state-level data is calculated by school type. (This data is reported by the state for the preceding year.)

Stability Rate:

Level	Year	Stability Rate
Elementary School	2002-03	94.8%
	2001-02	94.6%
	2000-01	94.7%
Middle School	2002-03	94.7%
	2001-02	94.5%
	2000-01	94.5%
High School	2002-03	92.6%
	2001-02	91.9%
	2000-01	92.0%

6. Limited English proficient students in the district: 10.6%

7. Students who qualify for free/reduced priced meals: 36/6%

8. Students in the district receiving special education services: 10.7%

9. Describe any significant changes in the data reported in items 4-11 that have occurred during the past five years and explain why the changes occurred.

Due to the continuous influx of immigrants from Central America, South America, and the Caribbean, Broward County has experienced unprecedented growth. Each year since 1994-95 annual enrollment district wide has been on the increase, ranging from a one-year gain of 5,380 in 2002-03 to 5,067 in 2003-04. When looking at the difference in student numbers from 1994-95 to 2003-04, enrollment grew from 198,690 to 271,339, representing an overall increase of 72,649 from ten years ago. Enrollment for 2003-04 compared to 2002-03 demonstrated the largest growth at the high school level, which increased by 3,301 students. In that same period, charter school enrollment increased by 1,071 students.

Indicate the full-time and part-time staff members in each of the below categories:

	Number of Staff Full Time/Part Time
Administrator(s)	_____
Classroom teachers	_____
Special resource teachers/specialists	_____
Paraprofessionals	_____
Support staff	_____
Total Numbers	_____

Personnel latest figures (2004-2005)
Source: http://www.browardschools.com/about/overview.htm
Number of Instructional Staff -- approximately 17,000
Number of clerical, support, etc. staff -- approximately 13,000
Total number of Full-time -- approximately 30,000
Total number of Part-time -- 9,450
TOTAL 39,450

Florida Sterling Criteria

Sterling is a framework that our district uses to drive continuous quality improvement. It allows the district to closely examine what we are doing at the school, area and district levels. Sterling is a data-driven and people oriented process, designed to empower our personnel, remove barriers, and promote performance excellence. The Sterling Quality Process is based upon the Malcolm Baldrige International Criteria. Sterling is Florida's equivalent to the Baldrige principles, and as such is recognized as a comprehensive way to assess and improve organizational performance.

Sterling is based upon the following seven criteria:

- Leadership
- Strategic Planning
- Customer Focus
- Information and Analysis
- Human Resource Management
- Process Management
- Results

The Sterling Process is not a quick fix and requires time, effort, resources, and commitment. It provides a common language for all stakeholders and promotes system alignment, thereby resulting in achievement of goals and objectives.

District Strategic Plan

The District Strategic Plan was developed and will be implemented utilizing the Sterling Quality Principles. Extensive needs assessment included data analysis as well as surveys and focus groups, which provided the data, which led to specific goals and objectives. Each department within the district follows a similar process to develop their unique departmental plans, which support the district plan. In the same manner, schools develop their school improvement plans, employing the Sterling Quality Principles. Each school conducts extensive needs assessment, using state accountability data, results of assessments conducted at the school, classroom data and input from all community stakeholders. Once needs are determined, a comprehensive plan which supports the district plan and targets the state Accountability requirements as well as the requirements of No Child Left Behind (NCLB) is developed. This plan is shared with all stakeholders. Only when this kind of alignment is achieved can the district goals be accomplished.

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- **Student Focus**
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- **We are accountable for improving student achievement.**
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Goal I: **All students will achieve at their highest potential.**

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strategic planning initiatives ** such as Broward Alliance, Coordinating Council of Broward, Children's Services Council, Vision Broward and others that will result in value-added outcomes as measured by legislative action and successful implementation of public policy programs that benefit the cooperating entities.

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**Score 3 or Higher on AP Exam, receive a grade of C or higher in Dual Enrollment and be eligible for college credit, receive a grade of C or higher in Honors Courses.*

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Career, Technical and Adult/Community Education (CTACE)

Career, Technical and Adult/Community Education (CTACE) programs and services are an integral part of Broward County Public Schools. Preparing students to enter today's highly technical careers is the cornerstone on which the district's workforce development programs are built. Programs begin with career awareness and exploration in middle school and progress through specialized high school and postsecondary technical education training programs, resulting in the acquisition of a high-skill/high-wage job.

Adult and Community Education programs and services are provided to thousands of economically and ethnically diverse adults and children annually. Programs are designed to improve the employability of the workforce through Adult Basic Education (ABE), Adult Secondary Education, General Educational Development (GED), English for Speakers of Other Languages (ESOL), Family/Intergenerational Literacy, Adults with Disabilities, and Vocational Preparatory Instruction. Community Education programs provide academic, recreational, health, cultural, artistic, social science, and parenting preparation programs.

2.2
Technology Plan Development Process

Strategic Technology Design Decisions

Given the rapid change in developing and emerging technologies in the field of education, BCPS is committed to a re-visioning process on a regular basis to determine needed adjustments. Results from these regular evaluations of the technology implementation will form an important data source for the re-visioning process. The *Information Technology Blueprint* establishes and maintains technical standards to ensure compatibility of hardware, software, and training/support with the district's established mission, goals, and objectives while providing schools adequate flexibility to meet the unique needs of the students, faculty, staff, administration, and community. BCPS will engage in planning, designing, and implementing an enterprise-wide approach to information technology that is based on these principles.

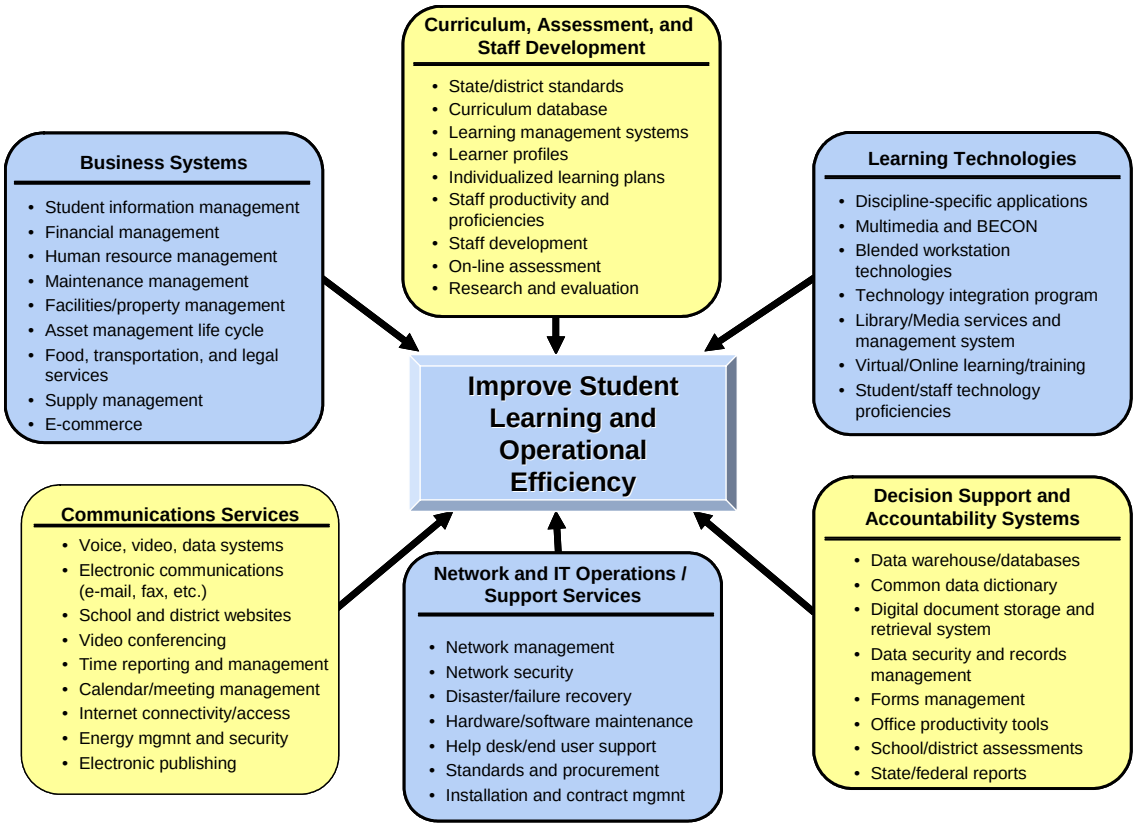


Figure 3.1: Enterprise-Wide Approach to Information Technology

Further, the following technology design decisions should be used to guide the procurement and design of the district-wide information technology system:

- continuously improve/maintain an enterprise-wide information technology system that supports all business services as well as teaching and learning opportunities for everyone within BCPS.
- increased student achievement is the driving force for all information technology decisions
- define primary customer as student, teacher, and parent
- maintain vendor-independent, open system standards and procurement specifications for all IT components
- where appropriate, ensure that technology applications are web- accessible in order to support a myriad of instructional applications and productivity tools and devices)
- capture information once and validate it at the source
- import the data elements of all applications into the data warehouse in order to support data-driven decision-making
- adopt an IT architectural approach to the research, planning, integration, and monitoring of a comprehensive information technology infrastructure similar to the approach used for “Physical” infrastructure
- focus all decision support system projects on getting accurate, timely, and mission-critical information to all stakeholders
- converge voice, video, data, security and energy management into an integrated/redundant network system
- provide technical and curriculum/technology integration support for all schools and departments
- provide tools for students to use technology to actively direct, assess, and manage their own learning
- provide tools, knowledge, and training for teachers and administrators to use technology to direct, assess, and manage their students’ learning.
- make BCPS technology resources accessible (with appropriate security) from home, public libraries, and museums in support of community learning and economic development
- provide high-quality and responsive IT support on a 24/7 - anywhere, anytime - basis
- make “research-based best practices” a part of every project

Blueprint Methodology

Design Approach

The planning model used to develop the *Information Technology Blueprint* is validated by the United States Department of Education. The planning process entails a set of integrated data collection and analysis techniques to systematically present information and findings and validate them through interactive processes with key stakeholders. Figure 8-1 below displays the flow of the planning process from initial stages of technology audit and needs analysis through installation and training:

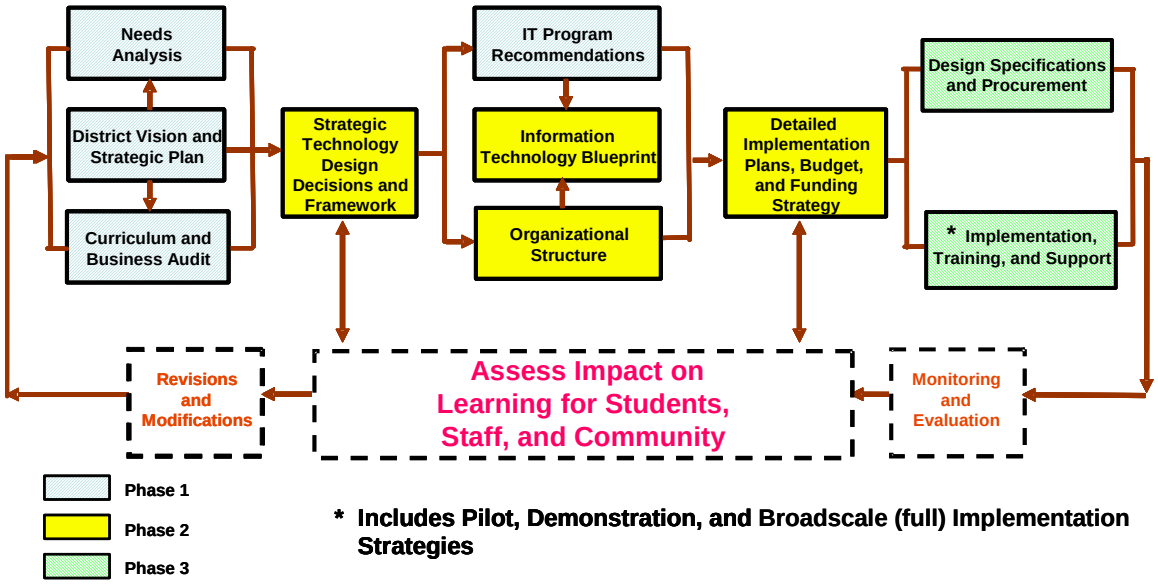


Figure 8-1: IT Architectural Approach from Planning to Implementation Results

Phase I

Phase I, the information technology assessment phase, was completed in November 2003 with the delivery of the *Enterprise Information Technology Assessment Key Findings and Recommendations Final Report*.

This phase involved the following tasks in the planning model:

- Needs Analysis
- District Vision and Strategic Plan
- Curriculum and Business Audit
- IT Program Recommendations

Phase II

Phase II in the planning model is the development of the *Information Technology Blueprint*.

- Curriculum and Assessment
- Teaching and Learning Technologies
- System Facilities and Learning Environments
- Organizational Development and Staffing
- Staff Development and Training
- Standards, Procurement, and Maintenance
- Policies and Procedures
- District, School, and Program Level Planning
- Administrative and Decision Support System
- Communications and Network Infrastructure
- Community Access and Participation
- Monitoring and Evaluation
- Budget, Funding, and Cost Savings
- Benefits and Outcomes

Phase III

Phase III in the planning model implements the plan. The implementation phase develops all of the activities necessary to obtain necessary manage and complete the implementation of all *Information Technology Blueprint* components, and includes the following sections:

DISTANCE LEARNING

BECON

www.becon.tv






Home

High School Information

Middle School Information

Elementary Information

Outreach Programs

Ordering VC Equipment

BECON Videoconference Information

BECON Distance Learning offers several types of video technologies, ISDN, IP videoconferencing, and web-based conferencing.

ISDN videoconferencing allows simultaneous participation via two-way audio and video technology. BECON is one of the leaders in videoconferencing with over 150 locations receiving daily academic and special programs. It is our goal that within five years all of our schools will have at least one unit.

Students are engaged in classroom instruction and take field trips outside of Broward County, participate in events and special programs, and creatively learn of other countries. Learning is done in "real time" in which the student and host interact face-to-face.

ISDN videoconferencing takes place over telephone lines. BECON Distance Learning standards are 3 ISDN telephone lines, a camera, codec, microphone, and a television monitor.

BECON Distance Learning is developing a network of content providers. We welcome others to participate with us. If you are interested in participating in any of our distance learning academic programs, or being a content provider for our school district please call 754-321-1103.

IP videoconferencing is two way audio and video over the Internet. Collaborative projects with other countries and organizations that use an Internet Protocol network are welcome.

Webconferencing is a one-to-many internet technology that delivers live or on-demand audio and video with synchronized media presentations, text messaging, and polling. This type of technology is more effective and efficient in delivering rich media to special programs.

How to get more information and technical support for your videoconferencing units?

For more information about Distance Learning and Video Conferencing, please contact BECON at 754-321-1000.

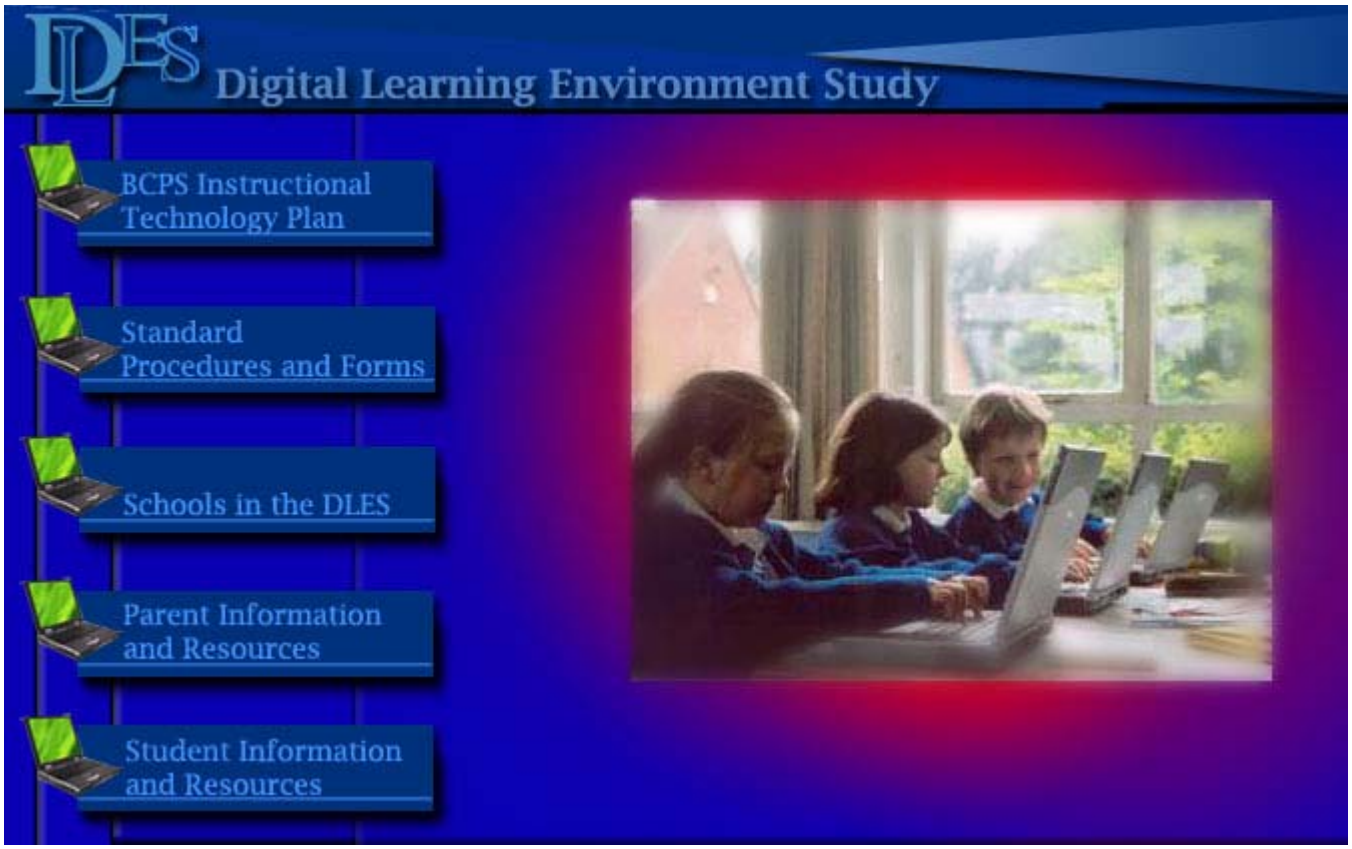
For technical support or problems with video conferencing equipment, please contact ETS at 754-321-0301.

DLES

Digital Learning Environment Study

DLES is a study which empowers students to become lifelong learners capable of using technology for critical thinking, problem solving, and virtual learning; thereby increasing student achievement.




DLES
Digital Learning Environment Study
BCPS Instructional Technology Plan
Standard Procedures and Forms
Schools in the DLES
Parent Information and Resources
Student Information and Resources

DLES Digital Learning Environment Study

Home

Instructional Technology Plan



On November 25, 2003, SBBC staff presented an overview of how Broward County Public Schools could best prepare its students to be successful in a 21st century learning environment. This presentation was aligned to No Child Left Behind Act mandates leading to technological literacy for students by 2006. The white paper that was presented to the School Board is included in the following link.

School Board Retreat – November 25, 2003
Digital Natives Vision Paper

On April 13, 2004, SBBC staff presented a follow-up to the 11/25/03 retreat. During this presentation, an Instructional Technology Plan for the district was tentatively approved. The plan can be viewed by clicking on the following link.

School Board Retreat – April 13, 2004
Changing the learning environment for our students: Vision into Action

Standards

As the nation's fifth largest school district, Broward County has consistently examined its programs in order to assess the effectiveness and quality.

Information Literacy Standards for Student Learning

http://www.ala.org/aasl/ip_nine.html

Southern Association of Colleges and Schools

http://www.sacs.org

National Educational Technology Standards for Students

http://cnets.iste.org/index.html

To download a PowerPoint presentation to train your faculty on this resource, visit:
http://cnets.iste.org/download.html

Florida's Sunshine State Standards

http://www.firn.edu/doe/prek12/frame2.htm

Learning Resources Department
The School Board of Broward County, Florida

Choose one of the following links:

- **VTRP and Best Practices Video Help Guides**
- **Download Templates**
- **Lesson Plans**
- **Project-Based Learning Plans**
- **WebQuests**
- **Administrator Login**

9058 VISITORS HAVE BEEN TO THIS SITE

Welcome to **Best Practices of Integrating Technology into Teaching and Learning**: your link to resources and "proven" strategies infusing technology into the curriculum including

- lesson plans
- project-based learning plans
- WebQuests

Use these examples as they are or adapt them to your classroom.

Best Practices of Integrating Technology into Teaching and Learning is also your link to the Virtual Technology Recognition Project.
Click on the link on this menu to submit a technology-enhanced lesson, project, or WebQuest for critical review and acceptance into Best Practices. Each year, the 10 most exemplary plans are selected and winners are awarded technology-based prizes and gain district-wide recognition.

Adobe Reader 6.0 will be required to print the online PDF files.
Click Here to download the Adobe Acrobat Reader 6.0

This project was funded by a grant from the Broad Foundation and the American Productivity and Quality Center (APQC).

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csds
CUSTOMER STAFF DEVELOPMENT SERVICES

VTRP
View the 2003-2004 VTRP winners

Career, Technical and Adult/Community Education
GED Online

GED Online is an Internet-based interactive course designed to prepare adult participants for the official GED test. This tuition free online course provides students with the opportunity to learn anytime, in any place, and at any pace from the convenience of a computer. This learning experience allows instructors to communicate regularly via telephone and email to provide individualized instruction and accommodate the diverse learning style of all students.

Course subject areas include:

- Language Arts: Reading
- Language Arts: Writing (including an Essay)
- Mathematics
- Science
- Social Studies

For more information, contact the Career, Technical and Adult/Community Education Department at 754-321-2661.

HOW DO I KNOW IF ONLINE LEARNING IS FOR ME?

If you agree with the following statements, then you are a strong candidate for online learning:

- I have access to a computer with Internet capabilities and I have an email account.
- I am comfortable with using the Internet to communicate and access information.
- I have strong written communication skills.
- I am motivated and self-directed.
- I am comfortable reading and following directions on my own.
- I find it easy to work through problems independently.
- My personal schedule will allow me to be flexible and complete assignments on time.
- I enjoy exploring and learning new things.
- I am committed to working online at least 10 hours per week.

Distance learning courses, such as GED Online, are highly successful for people who find it difficult to meet at a particular location on a regular basis. Participants in this course will find the freedom of scheduling to be of value. Please be advised that a distance learning course requires as much time on the Internet as a face-to-face course.

Please remember communication is a key to success for any online course. Be sure to communicate frequently with your instructor.

The School Board of Broward County, Florida

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Community Education

Ms. Neeta Rancourt, Curriculum Specialist
Career, Technical and Adult/
Community Education

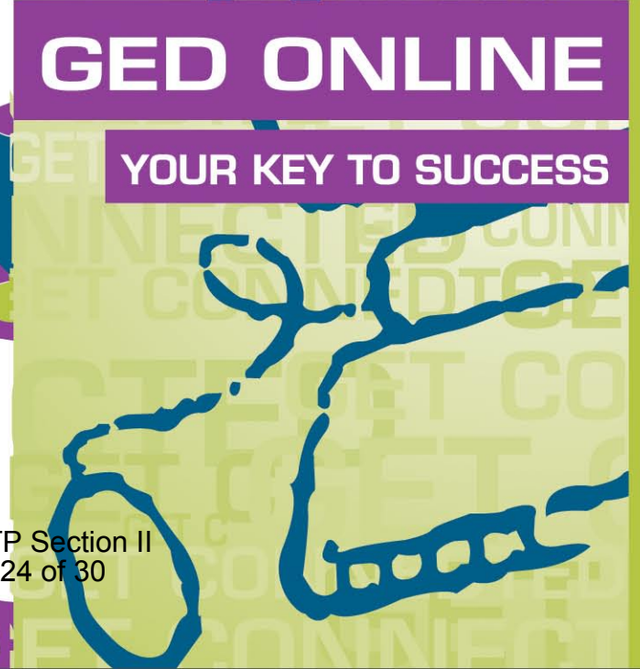
The School Board of Broward County, Florida, prohibits any policy or procedure which results in discrimination on the basis of age, color, disability, gender, national origin, marital status, race, religion or sexual orientation. Individuals with disabilities requesting accommodations under the Americans with Disabilities Act (ADA) may call Equal Educational Opportunities (EEO) at 754-321-2150 or Teletype Machine, TTY 754-321-2158.

www.browardschools.com



GED ONLINE

YOUR KEY TO SUCCESS



YOUR KEY TO SUCCESS • YOUR KEY TO SUCCESS • YOUR KEY TO SUCCESS • YOUR KEY

GED Online is an Internet-based interactive course designed to prepare participants for the 2002 GED Examination. This tuition free online course provides students with the opportunity to learn anytime, in any place, and at any pace from the convenience of a computer. This unique learning experience allows instructors to communicate regularly via telephone and email to provide individualized instruction and accommodate the diverse learning styles of the learners.

Course subject areas include:

- Language Arts: Reading
- Language Arts: Writing (including essay)
- Mathematics
- Science
- Social Studies

GET CONNECTED!

Career, Technical and Adult/Community Education
www.ctace.com

Broward County Public Schools
www.browardschools.com

WHAT EQUIPMENT DO I NEED TO PARTICIPATE IN THIS COURSE?

You will need to have access to a computer preferably with these minimum requirements:

PC (IBM COMPATIBLE)

- Pentium I (75 mghz minimum, higher recommended)
- Windows 95
- 64 Mb Ram
- 4x CD-ROM (8x recommended)
- 28.8 Baud modem
- Display setting (800x600) resolution
- Printer access
- Internet access through an Internet Service Provider (i.e. Bellsouth)
- Netscape Navigator 4.08 or above or Internet Explorer 5.0 or above*
- Flash player 5 or above*

MACINTOSH

- Power Mac 5400
- 64 Mb Ram
- 4x CD-ROM (8x recommended)
- 28.8 Baud modem
- Display setting (800x600) resolution
- Printer access through an Internet Service Provider (eg Bellsouth)
- Netscape Navigator 4.08 or above or Internet Explorer 5.0 or above*
- Flash player 5 or above*

*This software may be downloaded from the Internet at no additional cost.

HOW CAN I PARTICIPATE IN GED ONLINE?

- Contact your local adult center, technical center, or community school and ask what hours the school is available for registration.
- Take a placement exam at the participating adult center, technical center, or community school. This cost is $5.00.
- Register for the course at the school. You will need to provide your name, home address, email address, phone number, date of birth, and social security number. There is a $10.00 activity fee payable once per school year.
- Your instructor will contact you via email with information regarding when and how to access the course.

Qualifications:
To be eligible for the GED Online program, you must:

- Score a 9.0 or higher on the reading portion of the Test of Adult Basic Education (TABE);
- Have access to a computer with the required specifications;
- Commit to working at least 10 hours per week on the Internet;
- Be an adult who does not have a high school diploma.

WHAT ARE MY RESPONSIBILITIES AS AN ONLINE STUDENT?

- Take the placement exam at a participating adult center, technical center, or community school. Only upon scoring a ninth grade level in reading can you be a potential candidate in the online course.
- Complete the **GED Online Registration Form.**
- Sign the **Acceptable Use of the Internet Policy.**
- Sign the **Student Contact and Drop Policy.**

If admitted to the GED Online course, you will be accepted into a 21-day probationary period during which time your performance will be evaluated. If your performance meets the expectations of your instructor, you will continue in the course. Should your performance fail to meet the expectations of your instructor, you will be removed from the course.

For additional information regarding **GED Online**, contact Luana "Lu" Bassion with Career, Technical and Adult/Community Education at 754-321-2661.

Broward County Adult Centers, Technical Centers & Community Schools

- Atlantic Technical Center
  4700 Coconut Creek Parkway Coconut Creek
  754-321-5100
- Bair Community School
  9100 NW 21st Manor
  Sunrise • 754-322-2970
- Cooper City Community School
  9401 Stirling Road
  Cooper City • 754-323-0300
- Coral Springs Community School
  10300 West Wiles Road
  Coral Springs • 754-322-3070
- Crystal Lake Community Middle School
  3551 NE 3rd Avenue
  Pompano Beach • 754-322-3170
- Dave Thomas Education Center
  180 SW 2nd Street
  Pompano Beach • 754-321-6750
- Dillard/Parkway Community School
  2501 NW 11th Street
  Ft. Lauderdale
  754-322-0900
- Ft. Lauderdale High Community School
  1600 NE 4th Avenue
  Ft. Lauderdale
  754-322-1200
- Hallandale Adult Community School
  1000 SW 3rd Street
  Hallandale • 754-321-7050
- Hollywood Hills Community School
  5400 Stirling Road
  Hollywood • 754-323-1150
- Lauderhill Middle Community School
  1901 NW 49th Avenue
  Lauderhill • 754-322-3650
- Margate Community Middle School
  500 NW 65th Avenue
  Margate • 754-322-3870
- McFatter Technical Center
  6500 Nova Drive
  Davie • 754-321-5700
- Miramar High Community School
  3601 SW 89th Avenue
  Miramar • 754-323-1450
- Northeast Adult & Community School
  700 NE 56th Street
  Oakland Park • 754-322-1650
- Nova Community School
  3600 College Avenue
  Davie • 754-323-1741
- Old Dillard Community School
  1001 NW 4th Street
  Ft. Lauderdale • 754-322-8825
- Piper Community School
  8000 NW 44th Street
  Sunrise • 754-322-1800
- Plantation High Community School
  6901 NW 16th Street
  Plantation • 754-322-1950
- Sheridan Technical Center
  5400 Sheridan Street
  Street,Hollywood
  754-321-5400
- South Broward Community School
  1901 N. Federal Highway
  Hollywood • 754-323-1900
- Taravella Community School
  10600 Riverside Drive
  Coral Springs • 754-322-2400
- Tequesta Trace Community School
  1800 Indian Trace
  Weston • 754-323-4470
- Whiddon-Rogers Education Center
  700 SW 26th Street
  Ft. Lauderdale • 754-321-7550
- Walter C. Young Community School
  901 NW 129th Avenue
  Pembroke Pines
  754-323-4570


Inspiration
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The Leader in
Visual Thinking and Learning™
Welcome to the SBBC Inspiratio
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General Information
Installation Overview Presentation
Installation Instructions
Promotional Flyer
Downloads and Upgrades
inspiration • kidspiration
Training Resources
Inspiration Workshop Resources
Inspiration Presentation Scripts
Using Inspiration in Your Classroom
Using Kidspiration in Your Classroom
Online Resources
Achieving Standards with Inspiration 7
Sample Lesson Plans and Resources
Susnshine State Standard Matches
Online Tutor
Interactive Inspiration D
Inspiration Diagram
Atomic Learning Onlin
Interactive Kidspiration
Kidspiration Diagra
Click here
Curriculum Res
Click Here for:
Customer Staff Development Se

2.3
Collaboration with Existing Adult Literacy Service Providers

Connecting School-to-Career

The Career, Technical and Adult/Community Education (CTACE) department provides students with a variety of school-to-career opportunities. "Preparing students to enter today's highly technical careers is the cornerstone on which the district's workforce development programs are built."[4] Specialized programs and services include:

- Technical education
- Centers of Excellence partnership program
- Industry Services Training Center
- Apprenticeship Programs

The school to career (STC) program spans the elementary grades through high school. The School-to-Career department implements a "myriad of school-based, work-based and connecting activities and programs delivered by schools, employers, and communities."[4]

CTACE also provides programs for high-school students to improve their academic and technical skills. These programs include:

- Summer Transitions–In conjunction with Brandeis University, this program is six-week program in math and science for economically disadvantaged students
- In-School Youth Program–assists the transition from school to work for economically disadvantaged students in 11th and 12th grades

[4] Career,Technical and Adult/Community Education. Broward County Public Schools, http://www.broward.k12.fl.us/ctace/ctacemain.htm (accessed April 2004).

- Summer Training and Academic Remediation (STAR) program provides remediation services for economically disadvantaged students who are paid minimum wage

Community-based partnerships assist the district with providing internships, visitation sites, interview experiences (both in person and via video conferencing), exposure to state-of-the-art technologies in their chosen field, and hands-on experiences in a real-world setting in the career and technical education programs.

BCPS also participates in the national Groundhog Job Shadow Day program. Broward students have the opportunity to shadow a mentor in the workplace.

Community Learning Programs

The Career, Technical and Adult/ Community Education Department (CTACE) also offers programs and services to adults in the Broward community. Its mission is to provide "quality programs that ensure success for students of all ages."[5] Programs and services include:

- Continuing Workforce Education (CWE)
- Adult Basic Education (ABE)
- Adult Secondary Education
- General Educational Development (GED)
- Adult English for Speakers of Other Languages (ESOL)
- Family Literacy
- Adults with Disabilities
- Community Education

In addition, the Out-of-School Youth Program provides skills and occupational training for 18 to 22 year olds. These programs are designed to improve the employability of the workforce as well as recreational, cultural, artistic, and parenting preparation.

[5] "VACE Gets a Name Change." The 411, Broward County Public Schools, September 2002: http://www.browardschools.com/411/sept/page3.htm.

Who We Are

The Teaching and Leadership Center (TLC), established in June 2001, is a collaborative initiative joining the forces of Florida Atlantic University, Broward Community College and the School Board of Broward County, Florida in an effort to meet the challenge of attracting, developing, and retaining qualified, competent educators for the schools in our community.

TLC is demonstrating promising results by addressing gaps identified by data on the supply and demand for teachers. Innovative efforts to increase the teacher pool include:

- Recruitment and training of recent non-education graduates and mid-career professionals to enter the teaching profession.
- Procurement of grant funds to enhance professional development of teachers and school-based administrators.
- Development of programs at the middle and high school levels to encourage students to choose teaching as a career.

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The Digital Education Teacher Academy (DETA)

TLC's professional development initiative, The Digital Education Teacher Academy (DETA), is a fast-track graduate-level course at FAU/Tower Campus where current teachers in Broward County schools are immersed in hands-on experiential technological activities to improve student achievement in reading, mathematics, and science. Educators learn strategies for integrating technology that can be incorporated into daily practice, and for using new technologies such as Internet-based curriculum, digital tools, handheld computers and scientific software. Upon completion of the DETA course, teachers receive three graduate credits from FAU and follow-up support through the DETA Learning Community.

TLC and its partners have worked to expand this professional development initiative to provide more opportunities to incorporate DETA into whole-school training through a yearlong staff development plan at various school sites in Broward County. DETA is fully implemented with over 1000 teachers being trained annually. Formal evaluation results have been most positive and have led to an annual recurring $1.6 million School Board of Broward County technology training allocation for the DETA program continuance. The Sunshine State School Public Relations Association (SUNSPRA) awarded DETA First Place in the 2003 Sunshine Medallion Awards in the Handbook/Student/Parent/Staff category, and in 2004, DETA has been awarded a Blue Ribbon in the Exemplary category for participation in the Superintendent's Sterling Quality Award.

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Section III – Needs Assessment Goals

INTRODUCTION

BCPS participates in the STaR (School Technology and Readiness) Survey. The FL DOE Office of Educational Technology revises this annual technology survey to provide meaningful information pertaining to technology integration and capacity in Florida schools. The STaR Survey solicits responses from K-12 principals about technology and its utilization at their respective schools. The survey focuses on how technology is used in schools, and includes questions about infrastructure and available equipment. Broward County uses the results of this online survey for technology planning and needs assessment

The district's technology assessment for the IT Blueprint was conducted in the fall of 2003 (details of the planning process used for the IT Blueprint are presented in Section 2.2 of the Education Technology Plan). Results from this assessment indicate that BCPS has for the most part been at the vanguard of technology implementation in the district. SBBC continues its commitment of fostering the integration of technology in support of teaching and learning. Currently, two integrated learning systems (ILS) are in place in the district: Success Maker and Compass Learning, with the Florida Diagnostic and Learning System (FDLRS) supporting the district's special education students. Furthermore, the Blueprint commits the district to continually revision its IT processes so that it can meet emerging needs and new technology developments. Additonally, the district utilizes a myriad of surveys aimed at identifying the district's overall technology needs.

A recommendation from the IT Blueprint was a project management system, which is already in place (PMO). Projects are assigned a "business" manager and these assume project responsibility. PMO consists of four phases: project initiation, planning, execution and monitoring, and closing.

3.1

A description of the information-based processes used for determining district instructional and administrative telecommunications and technology needs.

2004 STaR District Profile Overview

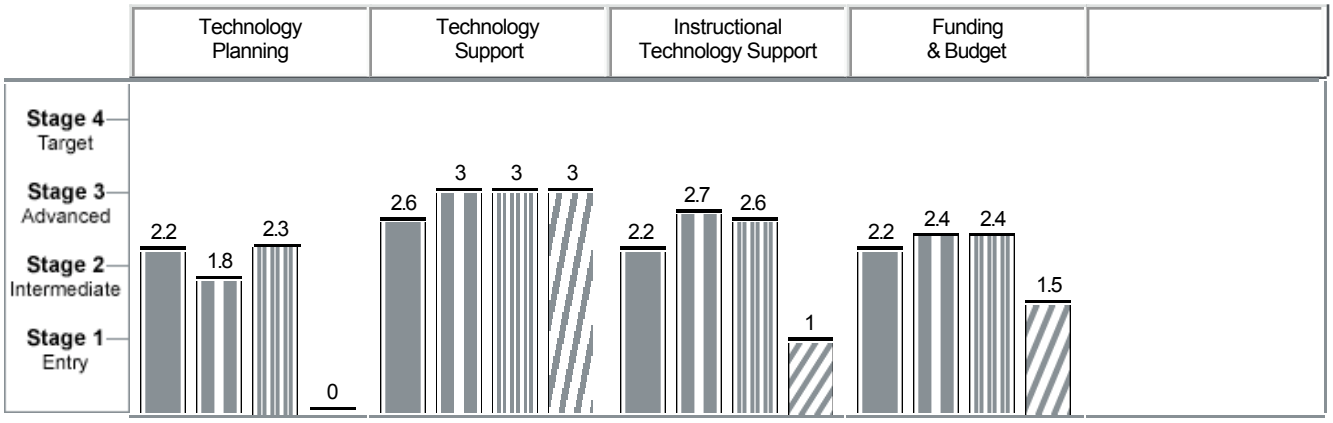
Schools: Broward county's averages for each school type.

Report Date: June 04, 2005

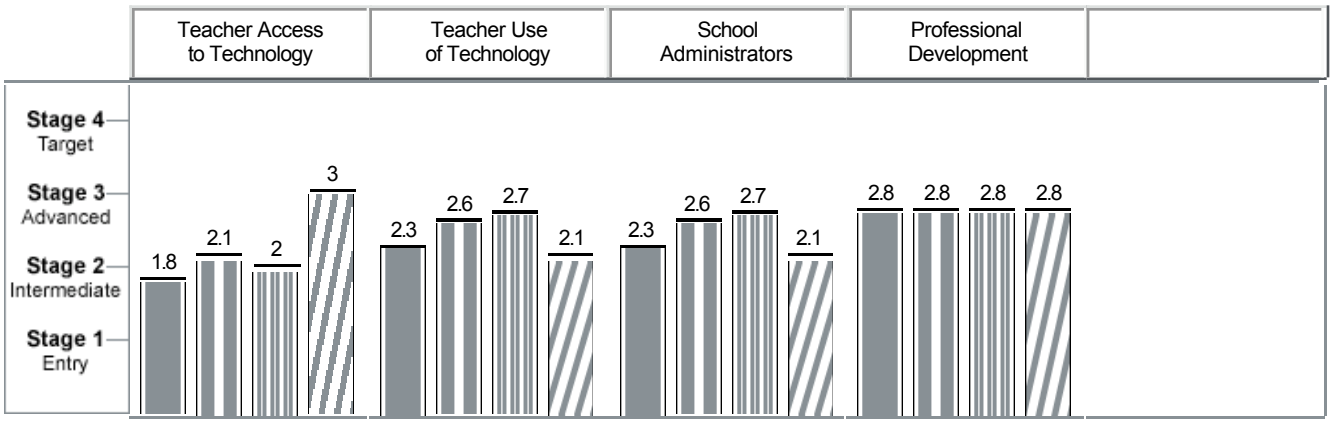
Legend

- Broward county elementary schools average
- Broward county middle/junior high schools average
- Broward county high schools average
- Broward county combination schools average

Technology Administration & Support

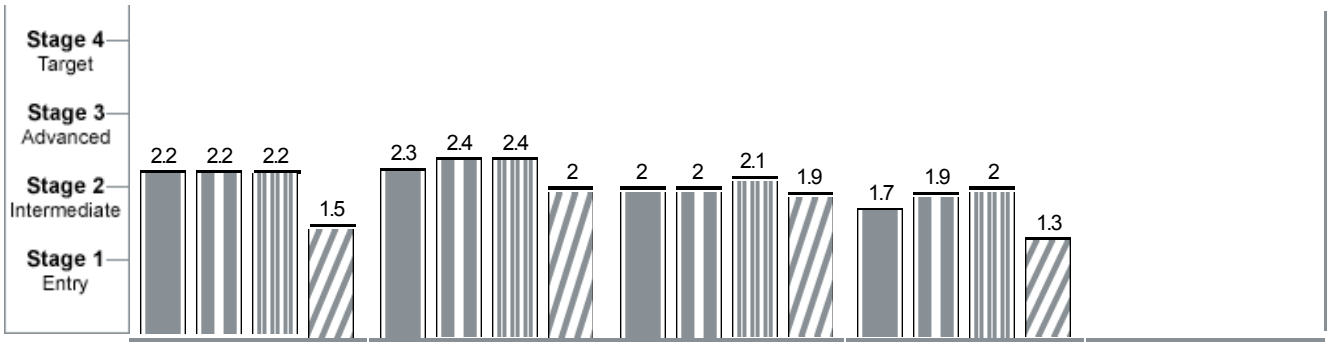


Educators & Technology

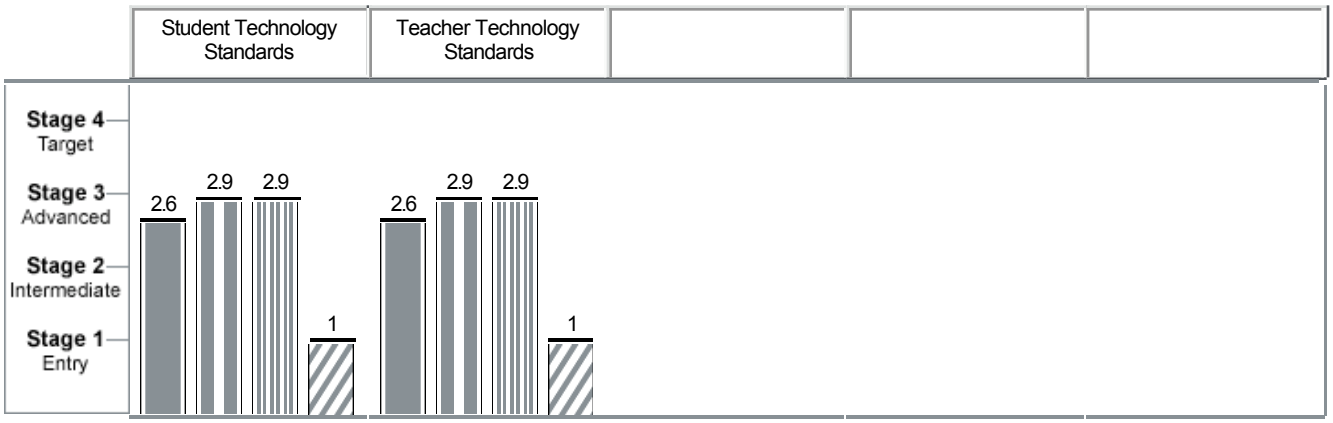


Learners & Learning





Accountability



Community



3.2
Identification of key telecommunications services, technology infrastructure, equipment (hardware), assistive technology, programming, software, technical support, and training needs.

BACKGROUND AND CURRENT STATUS

A comprehensive information technology assessment was conducted in Fall 2003.

The findings in this report, coupled with the vision articulated in the *Instructional Technology Plan* developed by the Digital Natives Committee, clearly demonstrate BCPS' commitment to "foster and support innovation and experimentation in the transformation from a traditional approach to teaching, learning, and education management to a technology-based model meeting the needs of a broad range of abilities, disabilities, cultural backgrounds, and ethnic populations."[3]

Curriculum Development and Instructional Management

The School Board Policy 5306, School and District Technology Usage states that "there will be a single technology system encompassing teaching, learning, and management." For a number of years, BCPS has been working towards this goal by implementing aspects of a CD/IM system. Components that are currently available include Curriculum Mapping, Virtual Counselor, Virtual Counselor Academic Improvement Plan, Virtual Counselor Guidance Interventions, Virtual Counselor Record TOWRE, Virtual Counselor Peer Counseling, lesson plan bank, Broward Virtual University, Atomic Learning Library (online technology staff development), and reports from the data warehouse. A plan is in place to realize the vision of CD/IM. Recently, the school board approved the Riverdeep proposal for the Learning Village teacher portal. In order for elementary schools to benefit from Virtual Counselor and other aspects of CD/IM, data relevant to the lower grades (e.g., ILS data) must be entered into the data warehouse.



[2] "Enterprise Information Technology Assessment Key Findings and Recommendations…," 28-44.
[3] "Policy 5306: School and District Technology Usage." Broward County Public Schools: School Board Policy Document (accessed Fall 2003).

Student Technology Standards

At least eight years before NCLB mandated that students demonstrate technology proficiency, BCPS was committed to graduating students who had 21st century skills. In fact, before ISTE completed development of its technology standards, BCPS developed its own set of student technology competencies for grades K-12 that would be introduced and mastered in each grade level. The district has since adopted the National Educational Technology Standards for Students (NETS•S) and Information Literacy Standards for Student Learning.

BCPS has explored ways to ensure that all students attain technology competence and 21st century literacy skills. Atomic Learning Library, an online, video-based technology resource, providing basic technology literacy skills training to students as well as teachers, parents and staff. The district also recognizes that technology must be integrated in all aspects of the curriculum as articulated in the *Enterprise Information Technology Assessment Key Findings and Recommendations* final report and the *Instructional Technology Plan*. [4], [5]

Curriculum and Technology Integration

BCPS is dedicated to integrating technology into the curriculum. A comprehensive support structure is in place to provide a wealth of professional development opportunities to educators. The commitment to explore, demonstrate, train, and maximize the potential of technology to improve student learning at all levels is outstanding. Exciting projects are evident through multiple initiatives and with diverse support from many departments within the district.

Section 8 of the 2002-2007 *District Information Technology Plan*[6] includes a professional development plan for integrating technology into teaching and learning. The recently published *Instructional Technology Plan* articulates the district's vision for staff development and training for the purpose of curriculum/technology integration. *Section VI. Staff Development and Training* also provides information about this critical topic.

[4] "Enterprise Information Technology Assessment Key Findings and Recommendations…," 28-44.
[5] School Board of Broward County, Digital Natives Committee (2004).
Instructional Technology Plan. School Board of Broward County. Presentation to the School Board Retreat, April 13, 2004.
[6] District *Information Technology Plan 2004-2007.* School Board of Broward County

Assessment and Evaluation

Assessment

The Student Assessment Department is a data-driven unit within The Office of Research, Evaluation, Assessment & Boundaries. According to its mission statement, "The Department of Student Assessment is dedicated to facilitating assessment and interpreting data for stakeholder decision making in support of quality education for all students."[7] It maintains a website (www.brroward.k12.fl.us/studentassessment) that provides schools with assessment data and information as well as links to critical outside resources such as the Florida Department of Education (www.fldoe.org) and the Educational Research Service (ERS) EduPortal Service (www.myeduportal.com). This service provides access to over 1,000 research-based educational publications.

Benchmark Assessments

The Broward Benchmark Assessment Test (BAT) Project started in September 2003. The project was initiated to inform teachers and administrators data about student progress in preparation for the Florida Comprehensive Assessment Test (FCAT).

> Research has shown that when instruction is guided by a mechanism of ongoing assessment, the result is increased student achievement. As the Florida Accountability Plan under the No Child Left Behind Act involves annual assessment of all students, the Broward Benchmark Assessment Project infuses multiple benchmark assessments into the school year as a method of diagnosing areas of strength and weakness for individual students and groups of students.8

The project includes assessment instruments developed from released FCAT items, FCAT practice tests, and instructional guides. During the pre-school week, a BECON broadcast introduced the project to district staff. A video production, "Understanding Benchmark Assessment Reports was also made available to staff.

[7] "Student Assessment Department," Broward County Public Schools, www.brroward.k12.fl.us/studentassessment, accessed April 2004.
[8] "District Benchmark Assessments 2003-2004," Broward County Public Schools, www.brroward.k12.fl.us/studentassessment, accessed April. June 2004

In the 2003-2004 school year, District Benchmark Assessments were administered to students in grades 3-10 in both Reading and Mathematics. Tests were 90 minutes in length and consisted of 40 to 60 multiple-choice items per test. Tests were administered at each school and then scanned and scored by ETS. "The idea behind local scanning and scoring is to ensure that schools get the data from these tests in a timely manner as possible for use in guiding classroom instruction and targeting areas which need improvement prior to FCAT." Five days after scoring, reports were entered into the BCPS Data Warehouse and test results were made available through Virtual Counselor.

A recent memorandum from the Assistant Superintendent Research, Evaluation, Assessment & Boundaries to School Board Members dated June 17th provided an update to the BAT project. This memorandum reviewed the components of the 2003-04 implementation phase in preparation for the 2004-2005 school year. Recommendations from stakeholders were reviewed frequently. Areas discussed included data analysis BAT and FCAT 2004, data reporting, BAT administration 2004-2005, test item construction and revision, training, and online assessment products.

The BAT committee has reviewed online assessment products and test item banks that are commercially available. At this time, it has not selected a product because it has determined that "test development companies are in the early stages of developing and validating Sunshine State Standard aligned benchmark assessments…None of the reviewed products emerged as viable alternatives to the current BAT project." [9]

Interim Assessments

Interim assessments (generally pulled weekly) from ILS systems such as Successmaker, Compass Learning, and others help provide useful information to teachers and principals about student progress in learning. The assessment data from the ILS systems are currently not in the data warehouse.

Evaluation

Research Services, a data-driven unit within the Office of Research, Evaluation, Assessment & Boundaries, handles evaluations. The mission of the department is as follows:

[9] Katherine Blasik, Ph.D. to School Board Members, 17 June 2004, *Update on Benchmark Assessment Tests*.

- Procurement of appropriate data to aid the Superintendent and Administration in decision-making;
- Provision of information on contemporary educational issues;
- Development, selection, and utilization of appropriate assessment tools, including surveys, for the evaluation of district programs;
- Annual administration of customer surveys to students, parents, and teachers, including the production of school-by-school and district-wide reports;
- Design and execution of studies to evaluate processes and outcomes associated with educational programs and instructional strategies;
- Monitoring the collection and organization of longitudinal data to determine trends in student achievement and changes in demographics over time;
- Provision of assistance to schools and departments for interpretation of data and evaluation results;
- Reporting mandated data requests from the Florida Department of Education, U.S. Department of Education, and other requests from outside organizations and individuals; and
- Evaluating proposed research collaborations with outside agencies and individuals engaging in research activities within the district.[10]

Research Services Website

The Research Department maintains a website www.brroward.k12.fl.us/research_evaluation that provides:

- Links to recent research reports (one example is the comprehensive evaluation of the Eight Step Instructional Process (ESIP) that was piloted in three low performing schools in BCPS.)
- a query capability to find releases of briefs, reports and evaluations
- a Request to Conduct Research in the Broward County Schools with an optional online submission form and email submission
- a host of resource links (e.g., National Center for Education Statistics (NCES) www.nces.ed.gov; United States Department of

[10] "Research Services," Broward County Public Schools, www.brroward.k12.fl.us/research_evaluation accessed April 2004.

Education www.ed.gov; Florida Department of Education www.fldoe.org; etc.).

- three-year evaluation calendar

Decision Support and Data Analysis

The Research Department uses several administrative applications to support their mission. The key applications used include SPSS, TERMS, and Brio. SPSS is an analytic tool that uses data from the TERMS system and data warehouse. Researchers query TERMS and the data warehouse via BRIO to assess the accuracy of the data before uploading into SPSS for further analysis. Before extracting data files for processing, the data in TERMS and the data warehouse must be checked for accuracy. Data is uploaded onto department PCs for analysis. Data accuracy is a major issue for this department as it can negatively affect correlation analysis and resulting interpretations. Data accuracy issues cause productivity losses of up to 25% in the Research Department due to the need for data scrubbing and cleansing processes to ensure reliable analyses. Student information accuracy needs to be a high priority for schools and administrators. Verification and correction of data reduces the time for interpretation and discussion of findings with other BCPS staff to strengthen district curriculum decision-making.

BACKGROUN AND CURRENT STATUS

The list below has
been updated to reflect the current status of technology for teaching and learning in the district.

Instructional Applications

Two ILS systems are being used in multiple elementary schools: SuccessMaker® in about 160 and Compass Learning in about 50. These systems were selected after review and acceptance by the district. In some schools the data is studied carefully and lessons are coordinated with teacher wishes. In other schools the entire curriculum is available for student self-paced review. In some schools minimal teacher intervention equates to nominal results. Other ILS-style software, with embedded assessment and instruction, used in elementary and secondary schools include Riverdeep, Plato, and NovaNet.

Inspiration© and Kidspiration© are used for organizing thinking about problems and in prewriting activities. Based on the critical mass of users and interest of schools, the district is now seeking a license, including training.

Multiple products that do not require Internet use are appropriately used by students and teachers. Not all software is or needs to be Web-based. Some software is deployed on handheld and other devices as well. Schools are just starting to leverage CD and online tie-ins to instructional materials (textbooks).

[2] "Enterprise Information Technology Assessment Key Findings and Recommendations", 45-68.
[3] "Policy 5306: School and District Technology Usage." Broward County Public Schools: School Board Policy Document (accessed Fall 2003).

Technology Utilization

The technology guidelines section of the School Board Policy 5306, School and District Technology Usage state that "A process will be established to monitor the effectiveness of technology project implementations."[4]

Plan 4 provided baseline technology standards to every permanent classroom including two computers, one printer for two classrooms, power and energy updates, and administrative equipment as well as laptops for teachers. Individual classrooms at schools may have redeployed this equipment in an instructional manner, but Plan 4 was intended to give equity across all schools.

Special Populations

Access and use of assistive/adaptive technology is a priority within Broward County. FDLRS (Florida Diagnostic and Learning System) provides services to special education students, their teachers and parents, and the community agencies serving them.

BCPS' special education division is in the process of broadscale implementation of EasyIEP by Public Consulting Group (PCG) to manage the development and implementation of Individual Education Plans (IEPs). The system was assessed during the 2002/2003 school year, piloted in a few schools in the 2003/2004 school year, and is being rolled out to all schools by February 2005. Student data can be passed from TERMS to the EasyIEP system so that data about the student doesn't have to be re-entered. The IEP data recorded about the student is now able to follow the student electronically as he/she moves through the school system. Another benefit of the system is the improved tracking of services that are delivered to the students who are eligible for Medicaid reimbursement.

Information and Technology Resource Centers

The district's Media Resource Center provides a cost-effective way of sharing resources that have been carefully selected for their quality and relevance to Broward County's curriculum. It provides student and teacher access to materials in a collection of 5,000 films, videos, CD-ROMs, laserdiscs, etc., many of which would be too costly for local school purchase or are only needed for brief but critical instruction.

[4] "Policy 5306: School and District Technology Usage." Broward County Public Schools: School Board Policy Document (accessed Fall 2003)

BACKGROUND AND CURRENT STATUS

Technology Enriched Learning Environments



- The district has to some degree implemented the Plan4 effort to place four computers in each BCPS classroom. Two of these computers were purchased with district funds, the remaining two were to be purchased with school funds.
- On March 22, 2004, the *Laptops for Learning Final Report and Recommendations of the Laptops for Learning Task Force*, commissioned by the Florida legislature was released.[4] This report confirms the impact seen across the nation of providing ubiquitous access to computing resources by providing a laptop computer to each learner and wireless access to the Internet.

[2] "Enterprise Information Technology Assessment Key Findings and Recommendations Final Report," 45-68.
[3] *Instructional Technology Plan*. School Board of Broward County, Digital Natives Committee Presentation to the School Board Retreat, April 13, 2004.
[4] *Laptops for Learning: Final Report and Recommendations for the Laptops for Learning Task Force*. Educational Technology Clearinghouse. March 22, 2004: http://etc.usf.edu/L4L/Index.html (Accessed April, 2004).

- The district's Digital Natives Committee presented their *Instructional Technology Plan* to the school board on April 13, 2004.[5] This document articulates a vision for learning in Broward that reflects their desired technology enriched learning environments. The plan includes a budget that addresses three new projects 1) a Digital Learning Environment Study, 2) Teacher Portal System (CD/IM), and 3) Web-based Integrated Learning Systems.

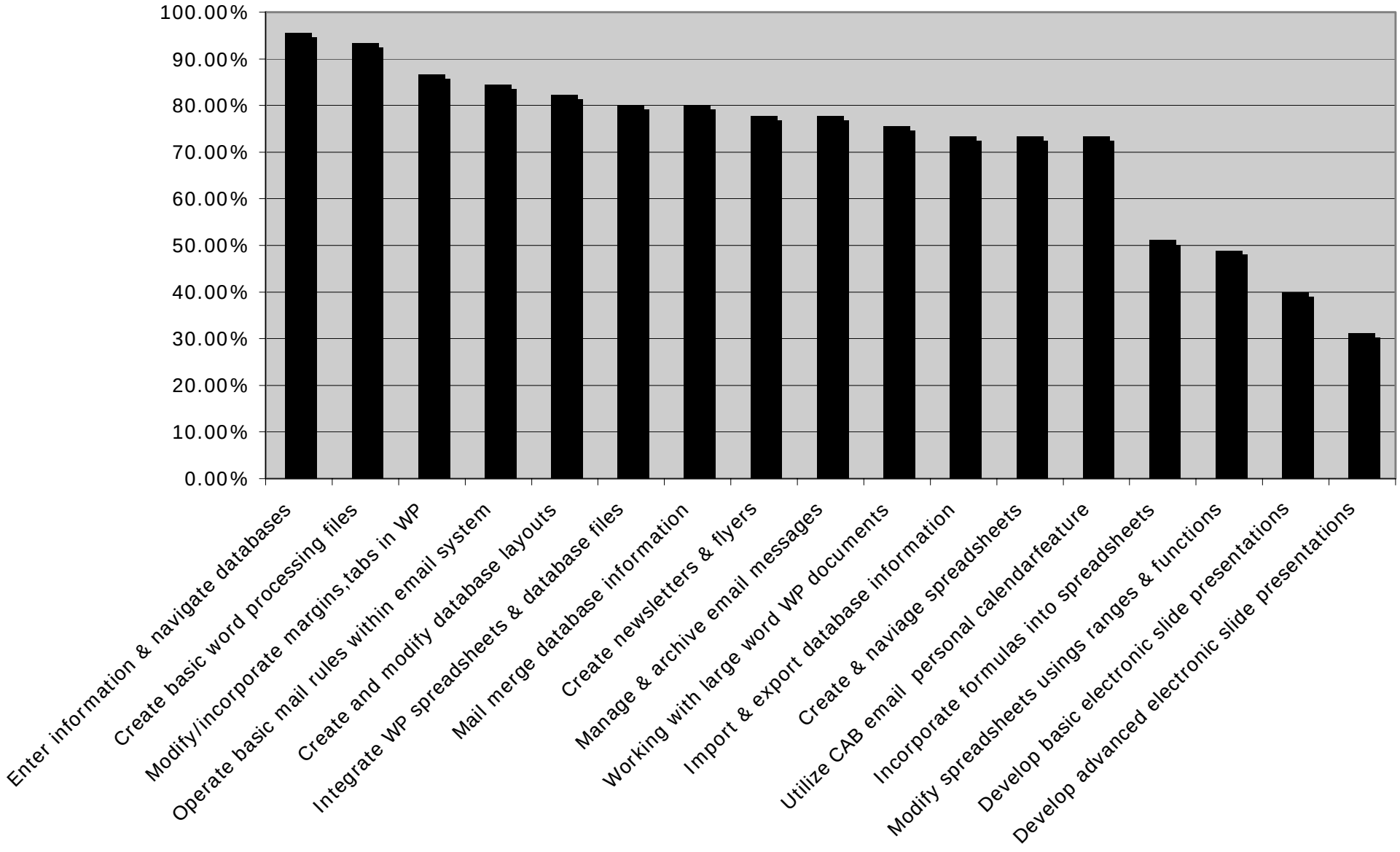
System Facilities

- The facilities are constructed or renovated to support the following typical classroom technology:
  - Four computers (Students)
  - One laptop (Teacher)
  - One printer
  - One telephone
- BCPS standards for electrical outlets for technology are:
  - One duplex outlet for each communication port, unless port is designated for voice use only.
  - One duplex outlet for the printer (does not need to be surge suppressed).
- The district has several facilities design standards relating to technology in schools. These include communications networking infrastructure, intercom system, television master antenna & RF distribution system, telephone system, outlet boxes, sound system for classroom, auditorium, gymnasium , and multipurpose / dining (middle schools), intercom / master clock, computer networking electrical, panel surge protector, grounding, and acceptance tests and performance verification.
- The BCPS standard for classroom communication outlets is a minimum of one 3/4-inch empty conduit for every four communication devices. One of the conduits must be located by the teacher workstation. Run conduit from single gang outlet box to accessible space above the ceiling.
- Specialty classrooms Communication Outlets: Provide a minimum of three 3/4-inch empty conduits for general classrooms. One of the conduits must be located by the teacher workstation. Run conduit from single gang outlet box to accessible space above the ceiling. Typical outlet layout to be provided by SBBC Education Technology Services Department.
- School energy management system controls air conditioning, lighting, and other environmental control systems. The system operates 7X24 and is administered by school personnel.

[5] *Instructional Technology Plan.* School Board of Broward County, Digital Natives Committee Presentation to the School Board Retreat, April 13, 2004.

- The district spent $37 million last year for electrical power. Rates may drive billing up by more than 15% this year. The district has initiated additional conservation programs. Facilities and Maintenance utilize data captured in the energy management system to analyze electric consumption and to troubleshoot HVAC problems.
- The district's video surveillance system uses standard closed circuit television (CCTV) product that is monitored by building personnel from approximately 07:30 to 18:00 daily. After hours the systems continue to record assigned areas. The schools have a motion system that provides after hours detection of intrusions.
- School security is activated at the end of the day by school personnel. Motion detectors and door sensors enable silent alarms. Alarms are sent to electronic security monitoring personnel (7X24) in the TSSC building, who then dispatch the police during abnormal events. The current system works fairly well although false alarms are problematic.

School Board of Broward County
CAP Program
Survey Results



BROWARD COUNTY PUBLIC SCHOOLS

The Nation's Fifth Largest School District

Best viewed in Netscape 4.7 or higher or Internet Explorer 5.0 or higher.

Answer all questions before pressing the submit button at the bottom of the page.

Last Name: * Required Entry

First Name: * Required Entry

Location Number: *
Required Entry

Elementary Job Description	Middle School Job Description	High School Job Description
☐ Kindergarten	☐ Art	☐ Art
☐ 1st Grade	☐ Business	☐ Business
☐ 2nd Grade	☐ Computers	☐ Computers
☐ 3rd Grade	☐ ESOL	☐ ESOL
☐ 4th Grade	☐ Foreign Language	☐ Foreign Language
☐ 5th Grade	☐ Guidance Counselor	☐ Guidance Counselor
☐ 6th Grade	☐ Instructional Technologist	☐ Instructional Technologist
☐ Art	☐ JROTC	☐ JROTC
☐ Computer	☐ Language Arts	☐ Language Arts
☐ Curriculum Specialist	☐ Math	☐ Math
☐ ESOL	☐ Math Coach	☐ Math Coach
☐ Generalist	☐ Media Specialist	☐ Media Specialist
☐ Guidance Counselor	☐ Music	☐ Music
☐ Instructional Technologist	☐ Physical Education	☐ Physical Education
☐ Math Coach	☐ Reading	☐ Reading
☐ Media Specialist	☐ Reading Coach	☐ Reading Coach
☐ Music	☐ Science	☐ Science
☐ Physical Education	☐ Social Studies	☐ Social Studies
☐ Reading	☐ Special Education	☐ Special Education
☐ Reading Coach	☐ Speech Pathologist	☐ Speech Pathologist
☐ Science	☐ Vocational	

☐ Special Education
☐ Speech Pathologist
☐ Writing Coach
☐ Other

☐ Writing Coach
☐ Other

☐ Vocational
☐ Writing Coach
☐ Other

If you do not see your current teaching assignment in the list, and you checked OTHER, type you job description below:

What type of computer do you use at home?

○ No Computer ○ Mac Only ○ PC Only ○ Both Mac & PC

I can access school resources from home.

○ Yes ○ No

My students use the computers in my room.

○ Daily ○ Several Times a Week ○ Weekly ○ Monthly ○ Rarely

I use Instructional TV for teaching and learning.

○ Daily ○ Several Times a Week ○ Weekly ○ Monthly ○ Rarely

When is the best time for you to attend training?

☐ Before School ☐ After School ☐ Saturday ☐ On-line

Does your Professional Growth Plan (PGP) include a technology objective?

○ Yes ○ No

Estimate the number of technology related staff development activities you attended during the last school year.

○ None ○ 1-2 ○ 3-5 ○ More than 5

Answer the following questions using the following key:

- **Unaware** - I have not heard of this technology concept
- **Aware** - I am familiar with the concept or skill but have little or no experience using it and need additional assistance or support
- **Early User** - I have some experience using the concept or skills but still need some support
- **Routine User** - I have experience using the concept or skill and need tips and pointers
- **Expert User** - I have extensive experience using the concept or skill and could teach it to

others

Section 1 - Technology Operations and Concepts

All questions in Section 1 through Section 5 begin with "I can...."

Basic Operations

I can...

1.	Use a mouse or keyboard to operate the computer.	Unaware	Aware	Early	Routine	Expert
2.	Print a document.	Unaware	Aware	Early	Routine	Expert
3.	Adjust basic settings, like date and time, on a computer.	Unaware	Aware	Early	Routine	Expert
4.	Use correct terminology to describe technology.	Unaware	Aware	Early	Routine	Expert
5.	Locate and open a document on a computer.	Unaware	Aware	Early	Routine	Expert
6.	Save changes made to a document.	Unaware	Aware	Early	Routine	Expert
7.	Organize documents in a folder.	Unaware	Aware	Early	Routine	Expert
8.	Make a backup of my files.	Unaware	Aware	Early	Routine	Expert
9.	Select a printer.	Unaware	Aware	Early	Routine	Expert
10.	Use basic network resources, like the server and intranet.	Unaware	Aware	Early	Routine	Expert
11.	Save to a server.	Unaware	Aware	Early	Routine	Expert
12.	Connect to a server.	Unaware	Aware	Early	Routine	Expert
13.	Connect a computer to a presentation device such as a television or LCD projector.	Unaware	Aware	Early	Routine	Expert

Troubleshooting

I can...

14. Help my students with basic computer questions.	Unaware	Aware	Early	Routine	Expert
15. Identify & solve routine hardware/software problems.	Unaware	Aware	Early	Routine	Expert
16. Access technical help/resources at my school.	Unaware	Aware	Early	Routine	Expert

Basic Software

I can...

17. Create simple word processing documents.	Unaware	Aware	Early	Routine	Expert
18. Change fonts, styles, and size in documents.	Unaware	Aware	Early	Routine	Expert
19. Make and save changes to previously prepared documents.	Unaware	Aware	Early	Routine	Expert
20. Create simple spreadsheet documents.	Unaware	Aware	Early	Routine	Expert
21. Enter and sort information in a spreadsheet.	Unaware	Aware	Early	Routine	Expert
22. Enter formulas in a spreadsheet to perform calculations.	Unaware	Aware	Early	Routine	Expert
23. Create a chart (graph) with the data in a spreadsheet.	Unaware	Aware	Early	Routine	Expert
24. Create a simple database.	Unaware	Aware	Early	Routine	Expert
25. Enter, sort and find data in a database.	Unaware	Aware	Early	Routine	Expert
26. Save files in a pdf format.	Unaware	Aware	Early	Routine	Expert
27. Use drawing/painting (i.e. Appleworks) software.	Unaware	Aware	Early	Routine	Expert
28. Create presentations with multimedia software (i.e. mPower, Powerpoint, KidPix, Appleworks).	Unaware	Aware	Early	Routine	Expert

29. Use a digital camera (still and/or video). ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

30. Use video editing software (i.e. iMovie, Final Cut Pro). ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

Research and Problem Solving

I can...

31. Gather information using CD-ROM and interactive books. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

32. Use online databases/reference software (Grolliers, SIRS, ProQuest, etc. provided by the district). ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

33. Connect to the school's PAC (electronic card catalog). ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

34. Use graphic organizers (Inspiration, Kidspiration). ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

35. Access specific Internet sites by typing in an address. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

36. Use Internet search strategies. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

37. Use curriculum specific software/hardware. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

Integrated Learning Systems (CCC, Compass, NovaNet, Accelerated Reading/Math)

I can...

38. Use an ILS for basis skill development in reading and/or math. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

39. Use an ILS to monitor individual progress. (ie. Accelerated Reader, Compass Odyssey, Riverdeep, SuccessMaker etc.) ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

40. Adjust academic levels in ILS system to meet individual student needs. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

Section 2 - Planning and Designing Lessons

I can...

41. Identify and evaluate suitable technology resources for my curriculum. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

42. Develop a set of bookmarks related to my discipline. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

43. Plan activities that integrate available technology resources for my class. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

44. Incorporate Internet use in my lesson plans. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

45. Integrate technology when appropriate in the Sunshine State Standards/Grade Level Expectations that I teach. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

46. Identify adaptive or assistive software needed for the special physical problems of my students. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

47. Incorporate adaptive and assistive technology into lessons to meet the special physical needs of my students. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

48. Arrange equitable access to technology resources for my students. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

49. Manage the use of technology resources for my students. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

Section 3 - Teaching, Learning and the Curriculum

I can...

50. Plan and implement technology-based learning activities for my students that require higher order thinking skills. ○ Unaware ○ Aware ○ Early ○ Routine ○ Expert

51. Develop lesson plans requiring students to present their projects via multimedia presentation software.	Unaware	Aware	Early	Routine	Expert
52. Implement a variety of instructional technologies to meet the needs of all learners.	Unaware	Aware	Early	Routine	Expert
53. Direct students to school and community resources to enhance learning.	Unaware	Aware	Early	Routine	Expert
54. Teach students strategies to determine the validity and reliability of information gathered on the Internet.	Unaware	Aware	Early	Routine	Expert

Section 4 - Assessment and Evaluation

I can...

55. Use checklists and rubrics to assist in the assessment of technology based projects.	Unaware	Aware	Early	Routine	Expert
56. Use technology tools to collect, interpret and communicate data needed for instructional planning and school improvement.	Unaware	Aware	Early	Routine	Expert
57. Collaborate with others to improve instructional design and delivery.	Unaware	Aware	Early	Routine	Expert
58. Use the results from assessments to improve instructional planning, management and implementation of learning strategies.	Unaware	Aware	Early	Routine	Expert

Section 5 - Productivity

I can...

59. Use electronic gradebooks.	Unaware	Aware	Early	Routine	Expert
60. Use online databases or programs for interims, scheduling or attendance.	Unaware	Aware	Early	Routine	Expert

61. Use electronic portfolios for student work.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
62. Use software to prepare lesson plans, tests and class materials.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
63. Use electronic IEP/AIPs.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
64. Use Virtual Counselor to access data about students.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
65. Use School Board email (ie CAB) to communicate.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
66. Use Internet email to communicate with parents and others in the community.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
67. Use videoconferencing equipment to communicate with other classrooms or educators.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert
68. Use class web sites to communicate with students and parents.	○ Unaware	○ Aware	○ Early	○ Routine	○ Expert

Section 6 - Social, Ethical, Legal and Human Issues

District Policies

69. I have read the School Board of Broward County's Acceptable Use Policy for technology.	○ Yes	○ No
70. I understand how the School Board of Broward County's Acceptable Use Policy applies to my use of technology.	○ Yes	○ No
71. I understand how the School Board of Broward County's Acceptable Use Policy applies to my student's use of technology.	○ Yes	○ No
72. I have a good understanding of copyright issues related to Internet content.	○ Yes	○ No

Human Issues

73. Students in my classroom have equitable access to technology resources.	**Unaware**	**Aware**	**Early**	**Routine**	**Expert**
74. I am aware of the issues involved in posting information about students on the Internet.	**Unaware**	**Aware**	**Early**	**Routine**	**Expert**

The purpose of this survey is to help schools plan appropriate staff development and to assist teachers in preparing their Professional Growth Plan.

Be sure all questions are answered before pressing the submit button.

Broward County Public Schools

Submit Survey Reset Survey

School Board of Broward County

PROFESSIONAL GROWTH PLAN FOR STAFF DEVELOPMENT

2004-2005

SUMMARY REPORT

Location: ALL RESPONDENTS

Number of Respondents: 15171

Reading	Total Responses	Percent
Core Content	3362	22.2%
Best Practices and Methodology	3170	20.9%
FCAT Strategies	4195	27.7%
Integration into the Curriculum - Math	663	4.4%
Integration into the Curriculum - Lang. Arts	989	6.5%
Integration into the Curriculum - Science	902	5.9%
Integration into the Curriculum - Social Studies	788	5.2%
Integration into the Curriculum - Art	1230	8.1%
Integration into the Curriculum - Music	244	1.6%
Integration into the Curriculum - PE	264	1.7%
Integration of Technology	2706	17.8%
Adaptive and Assisting Strategies for Diverse Learners	2655	17.5%

Mathematics	Total Responses	Percent
Core Content	2232	14.7%
Best Practices and Methodology	1729	11.4%
FCAT Strategies	2491	16.4%
Integration into the Curriculum - Reading	665	4.4%
Integration into the Curriculum - Lang. Arts	349	2.3%
Integration into the Curriculum - Science	474	3.1%
Integration into the Curriculum - Social Studies	233	1.5%
Integration into the Curriculum - Art	371	2.4%
Integration into the Curriculum - Music	136	0.9%
Integration into the Curriculum - PE	175	1.2%
Integration of Technology	1528	10.1%
Adaptive and Assisting Strategies for Diverse Learners	1359	9.0%

Writing	Total Responses	Percent
Core Content	1547	3.5%
Best Practices and Methodology	1860	12.3%
FCAT Strategies	2087	13.8%
Integration into the Curriculum - Reading	792	5.2%
Integration into the Curriculum - Lang. Arts	845	5.6%
Integration into the Curriculum - Science	301	2.0%
Integration into the Curriculum - Social Studies	455	3.0%
Integration into the Curriculum - Art	673	4.4%
Integration into the Curriculum - Music	102	0.7%
Integration into the Curriculum - PE	126	0.8%
Integration of Technology	1342	8.8%
Adaptive and Assisting Strategies for Diverse Learners	945	6.2%

Science	Total Responses	Percent
Core Content	910	6.0%
Best Practices and Methodology	742	4.9%
FCAT Strategies	1155	7.6%
Integration into the Curriculum - Reading	533	3.5%
Integration into the Curriculum - Lang. Arts	154	1.0%
Integration into the Curriculum - Math	308	2.0%
Integration into the Curriculum - Social Studies	119	0.8%
Integration into the Curriculum - Art	145	1.0%
Integration into the Curriculum - Music	64	0.4%
Integration into the Curriculum - PE	96	0.6%
Integration of Technology	852	5.6%
Adaptive and Assisting Strategies for Diverse Learners	516	3.4%

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Date Printed: 8/4/2004

School Board of Broward County

PROFESSIONAL GROWTH PLAN FOR STAFF DEVELOPMENT 2004-2005

SUMMARY REPORT

Location: ALL RESPONDENTS

Number of Respondents: 15171

Art	Total Responses	Percent
Core Content	213	1.4%
Best Practices and Methodology	208	1.4%
Integration into the Curriculum - Reading	168	1.1%
Integration into the Curriculum - Lang. Arts	94	0.6%
Integration into the Curriculum - Math	105	0.7%
Integration into the Curriculum - Science	65	0.4%
Integration into the Curriculum - Social Studies	56	0.4%
Integration into the Curriculum - Music	38	0.3%
Integration into the Curriculum - PE	42	0.3%
Integration of Technology	261	1.7%
Adaptive and Assisting Strategies for Diverse Learners	209	1.4%

Music	Total Responses	Percent
Core Content	176	1.2%
Best Practices and Methodology	181	1.2%
Integration into the Curriculum - Reading	150	1.0%
Integration into the Curriculum - Lang. Arts	64	0.4%
Integration into the Curriculum - Math	86	0.6%
Integration into the Curriculum - Science	39	0.2%
Integration into the Curriculum - Social Studies	35	0.2%
Integration into the Curriculum - Art	59	0.4%
Integration into the Curriculum - PE	39	0.3%
Integration of Technology	201	1.3%
Adaptive and Assisting Strategies for Diverse Learners	157	1.0%

Physical Education	Total Responses	Percent
Core Content	188	1.2%
Best Practices and Methodology	158	1.0%
Integration into the Curriculum - Reading	118	0.8%
Integration into the Curriculum - Lang. Arts	42	0.3%
Integration into the Curriculum - Math	82	0.5%
Integration into the Curriculum - Science	44	0.3%
Integration into the Curriculum - Social Studies	29	0.2%
Integration into the Curriculum - Art	37	0.2%
Integration into the Curriculum - Music	32	0.2%
Integration of Technology	209	1.4%
Adaptive and Assisting Strategies for Diverse Learners	171	1.1%

Social Studies	Total Responses	Percent
Core Content	495	3.3%
Best Practices and Methodology	381	2.5%
Integration into the Curriculum - Reading	339	2.2%
Integration into the Curriculum - Lang. Arts	149	1.0%
Integration into the Curriculum - Math	101	0.7%
Integration into the Curriculum - Science	89	0.6%
Integration into the Curriculum - Art	125	0.8%
Integration into the Curriculum - Music	54	0.4%
Integration into the Curriculum - PE	43	0.3%
Integration of Technology	482	3.2%
Adaptive and Assisting Strategies for Diverse Learners	359	2.4%

School Board of Broward County

PROFESSIONAL GROWTH PLAN FOR STAFF DEVELOPMENT 2004-2005

SUMMARY REPORT

Location: ALL RESPONDENTS

Number of Respondents: 15171

Assessment & Data Analysis	Total Responses	Percent
Analyze Data for Areas of Student Improvement	1553	10.2%
Analyze Data for Patterns	586	3.9%
Collecting Data	931	6.1%
Designing Student Assessment	618	4.1%
Developing Appropriate Interventions	867	5.7%
Using Technology Resources	1006	6.6%

Classroom Management	Total Responses	Percent
Managing Classroom Procedures	833	5.5%
Managing Student Conduct/Behavior	1183	7.8%
Managing Students in a Technology-Enhanced Environ	600	4.0%
Organizing Physical Space	450	3.0%

Instruction and Planning	Total Responses	Percent
Examining Student Work	741	4.9%
Questioning Skills and Providing Feedback	775	5.1%

School Safety	Total Responses	Percent
Child Abuse Awareness	514	3.4%
Crime Prevention	359	2.4%
Gang Awareness	361	2.4%
Substance Abuse Awareness	534	3.5%

Library Media	Total Responses	Percent
Core Content	216	1.4%
Best Practices and Methodology	261	1.7%
Integration of Technology	431	2.8%
Adaptive and Assisting Strategies for Diverse Learners	264	1.7%
Program Management	98	0.6%

Technology for Productivity	Total Responses	Percent
Word Processiong	469	3.1%
Data Base	535	3.5%
Presentation	697	4.6%
Communicating Across Broward (CAB)	512	3.4%
Spreadsheet	459	3.0%
Web Production	647	4.3%

Staff Development Trainers/Designers	Total Responses	Percent
Designing Training for Quality	249	1.6%
Coaching for Quality	258	1.7%
Facilitation and Training	368	2.4%
Quality Standards for Staff Development	188	1.2%

SBBC-PPP Section III
Page 9 of 67

Core Survey Questions

(for reference only)



Technology Administration and Support

1. Our technology plan was written specifically for, or customized for, our school.

- ○ Yes
- ○ No
- ○ We don't have a technology plan, but technology is addressed in the School Improvement Plan.

---

2. What is the average response time for technical support at your school?

- ○ less than 4 hours
- ○ 4-8 hours
- ○ 9-24 hours
- ○ greater than 24 hours
- ○ no technical support

---

3. Which of the following **best** describes your school-based technology support?

- ○ technical support only (i.e., troubleshooting or fixing hardware or software problems)
- ○ instructional technology support only (i.e., training and assistance with curriculum integration)
- ○ both technical and instructional technology support
- ○ no school-based technical or instructional technology support

---

4. We have adequate funding for our school to

- ○ maintain our current level of technology.
- ○ maintain our current level of technology and all purchases necessary for desired growth.
- ○ maintain our current level of technology and limited purchase of new equipment.
- ○ support some hardware expenditures, but not enought to maintain our current level of technology.
- ○ We do not have adequate funding to purchase or maintain hardware.

---

5. We have adequate funding for our school to

- ○ maintain our current level (Newly purchased machines have essentially the same applications as existing machines. No significant upgrading or additional software added to existing machines).
- ○ provide for the purchase of all software necessary to provide for desired growth.
- ○ provide for the purchase of some new or upgraded software.
- ○ support some software expenditures, but not enough to maintain our current level of technology.
- ○ We do not have adequate funding to purchase or update software.

---

6. Other than the funds generally provided through the District (which include sales tax proceeds).

1. What additional sources of technology funding has your school actively sought for the **2003-04 and/or 2004-05 school years**?
2. What additional sources have you been awarded? (This does not include monies moved from one object code to another within the school. This is about generating ADDITIONAL funding.)

(*Check all that apply.*)

2003-04 and 2004-05 school years

Funds Sought	Funds Awarded	
☐	☐	Business partnerships
☐	☐	District Grants
☐	☐	Donations
☐	☐	Federal or state grants
☐	☐	Foundations
☐	☐	Fund-raisers
☐	☐	Private Grants
☐	☐	PTA / PTO (or other school-related "booster" organizations)
☐		We have not sought additional technology funds this year.

---

7. What other school funds are currently allocated for the support of technology within your school? (*Check all that apply.*)

- ☐ A+ / School Recognition
- ☐ Profits from school ventures (cell towers, after-care, vending machines, Yearbook sales, etc.)
- ☐ Title I
- ☐ School Improvement
- ☐ Other
- ☐ No other school funds are currently earmarked for technology.

8. What percentage of the money spent on technology for your school is devoted to professional development in technology-related training?
(Enter "0" if none.)

_____ %



Access to Technology

1. Please indicate the total number of each of the following locations at your school.
(Enter "0" if none.)

Location	**Total number of each type of location at your school** *(Enter "0" if none.)*
Instructional Areas: Classrooms (including portable classrooms)	
Media center	
Computer labs serving general education	
Computer labs serving special education	
Computer labs serving vocational education	
Mobile computer labs	
Other student gathering places (e.g. cafeteria)	

2. Indicate the number of computers (including laptops) **FOR STUDENT USE** in each of the following school locations that meet ***both*** of the following specifications:

- **Internet and multimedia capable**

-- AND --

- **Purchased within the last 5 years**

(if number is zero, put "0")

Location	**Total # of Desktops for student use** *(Enter "0" if none.)*	**Total # of Laptops/Tablets for student use** (exclude handhelds such as iPAQ, Palms, and Alphasmarts, etc) *(Enter "0" if none.)*

Instructional Areas: Classrooms (including portable classrooms)		
Media center		
Computer labs serving general education		
Computer labs serving special education		
Computer labs serving vocational education		
Mobile computer labs		
Other student gathering places (e.g. cafeteria)		

---

3. Indicate the number of computers (including laptops) **FOR STUDENT USE** in each of the following school locations that meet ***either*** of the following specifications:

- **NOT Internet and multimedia capable**

  -- OR --
- **Purchased more than 5 years ago**

(if number is zero, put "0")

Location	**Total # of Desktops for Student Use** *(Enter "0" if none.)*	**Total # of Laptops/Tablets for student use** (exclude handhelds such as iPAQ, Palms, and Alphasmarts, etc) *(Enter "0" if none.)*
Instructional Areas: Classrooms (including portable classrooms)		
Media center		
Computer labs serving general education		
Computer labs serving special education		
Computer labs serving vocational education		
Mobile computer labs		
Other student gathering places (e.g. cafeteria)		

---

4. Indicate the total number of computers **in labs** that meet these minimum requirements:

   (Responses to this question will benefit the FLDOE Assessment Office as they look to providing online testing for HSCT and other tests.)

- LAN connection

- Windows XP Professional / Windows 2000
- 128MB or more of RAM
- CPU speed of 200MHz or more
- Screen resolution of 800 x 600

(Enter "0" if none.)

[ ] Computers (**in lab settings**) that meet these requirements

---

5. Indicate the number of teacher workstations that meet the specifications for each category: (Enter "0" if none.)

Type of teacher workstation	Total # of teacher workstations *(Enter "0" if none.)*	How many of these are mobile computing devices? (e.g., laptops or tablets) *(Enter "0" if none.)*
Modern computers • Internet and multimedia capable AND • Purchased within the last 5 years	[ ]	[ ]
Non-modern computers • NOT Internet and multimedia capable AND / OR • Purchased more than 5 years ago	[ ]	[ ]

---

6. What percentage of your classrooms have a teacher* workstation?

(Enter "0" if none.)

[ ] % of classrooms with teacher workstations

* *may be used by students with teacher permission*

---

7. How frequently does your school replace teacher and student computers?

	3 years or less	4 years	5 years	6 years or more	No Policy for replacement
Student computers	○	○	○	○	○
Teacher computers	○	○	○	○	○

8. Which of the following locations in your school have computers with software and hardware to assist students with special needs (e.g. ESE, ESOL, or visually impaired)? (*Check all that apply.*)

- ☐ Special education room(s)
- ☐ Media center
- ☐ Some core curriculum classrooms
- ☐ All core curriculum classrooms
- ☐ None

9. Do you currently have students with special needs (e.g. ESE, ESOL, or visually impaired) who do not have access to computers with software or hardware to meet those needs?

- ○ Yes
- ○ No
- ○ I don't know

10. Are computers available for **on-site**, after school use by your students?

- ○ available to all students.
- ○ only by special arrangement with a teacher
- ○ only for after-school programs and activities
- ○ not available for any student

For how many hours (per week) outside the regular school day are these computers available to students?

_____

11. Does your school have laptops that students are allowed to take home?

- ○ yes
- ○ no

12. Indicate the number of each of these digital devices available at your school. *(Enter "0" if none.)*

_____ computer projection devices that enable classroom viewing (e.g. multimedia projector, scan converter/TV, SmartBoard)

- [ ] digital cameras (still photos only)
- [ ] digital cameras (video or video/still combination cameras)
- [ ] digital probes
- [ ] DVD players
- [ ] graphing calculators (do not include desktops with graphic calculator software)
- [ ] scanners
- [ ] hand-held devices (e.g. Palm, Handspring, iPaq, Dana, etc.)
- [ ] dedicated, portable word processors (e.g. AlphaSmarts)
- [ ] VCRs
- [ ] other digital devices (please specify):

---

13. Are students permitted to check out digital devices for home use?

- ◯ Yes
- ◯ No

* digital devices might include: digital cameras, probes, scanners, etc.

---

14. Are teachers permitted to check out digital devices for home use?

- ◯ Yes
- ◯ No

---

15. Indicate the extent to which classrooms are equipped with the following digital devices:
(check one in each row)

	None available For classroom checkout	Not standard equipment in any classroom (0%)	Standard equipment in some classrooms (1-74%)	Standard equipment in most classrooms (75-99%)	Standard equipment in all classrooms (100%)
computer projection devices that enable classroom viewing (e.g. multimedia projector, document camera, scan converter/tv, SmartBoard)	◯	◯	◯	◯	◯
digital still camera	◯	◯	◯	◯	◯

digital video camera	○	○	○	○	○
scanner	○	○	○	○	○
television	○	○	○	○	○
VCR or DVD	○	○	○	○	○

---

16. What percentage of these instructional areas at your school has the following types of Internet access?
(Enter "0" if an option does not apply)

	Classrooms (column must total 100%)	Other Instructional Areas (column must total 100%)
Dial-up access to the Internet		
High-speed access to the Internet		
No access to the Internet		

---

17. What percentage of instructional areas has the capacity for wireless access to the Internet?

_____ %

---

18. Which of the following best characterizes the experience of using the Internet for instructional purposes in your school?

Our connection speed is:

- ○ completely inadequate.
- ○ fully satisfactory.
- ○ mostly adequate.
- ○ mostly adequate, if we avoid high-bandwidth sites.
- ○ mostly inadequate

---

19. How dependable is your Internet connection?

- ○ very dependable (95%-100% uptime)
- ○ dependable (90%-94% uptime)
- ○ somewhat dependable (85%-89% uptime)
- ○ not very dependable (75%-84% uptime)
- ○ not at all dependable (Less than 75% uptime)

20. How frequently do you experience delays when using the Internet for instruction?

- never
- 1-24% of the time
- 25-49% of the time
- 50-74% of the time
- 75-100% of the time

21. What percentage of classrooms (including portables) at your school has network (LAN) access?

_____ %

22. What percentage of student computers at your school has each of the following software types available on them?

	0%	1-24%	25-49%	50-74%	75-100%
concept mapping (e.g. Inspiration)					
graphics (any paint or draw program)					
multimedia authoring (e.g. HyperStudio)					
presentation software (e.g. PowerPoint)					
spreadsheet					
video editing					
web authoring (e.g. Dreamweaver)					
basic word processing (e.g. Wordpad, Notepad, TextEdit)					
robust word processing (e.g. Word, Works, AppleWorks)					

23. What percentage of student computers at your school have each of the following software types available on them?

	0%	1-24%	25-49%	50-74%	75-100%
FCAT prep tools					
Other test prep tools					

Integrated Learning Systems	○	○	○	○	○
Content-specific skills practice/tutorials	○	○	○	○	○
Content-specific simulation	○	○	○	○	○
Other content-specific resources	○	○	○	○	○
General Reference tools	○	○	○	○	○



Educators and Technology

1. Approximately what percentage of your teachers regularly uses technology in the following ways?

	0%	1-24%	25-49%	50-74%	75-100%
administrative tasks (lesson plans, grade book, reports, attendance)	○	○	○	○	○
analysis of student assessment information (e.g., FCAT scores)	○	○	○	○	○
delivery of lessons	○	○	○	○	○
desktop video production	○	○	○	○	○
email to other school or district staff	○	○	○	○	○
email to students or parents	○	○	○	○	○
presentations	○	○	○	○	○
research	○	○	○	○	○
video conferencing	○	○	○	○	○
webpage publishing	○	○	○	○	○

---

2. As principal, which of the following uses of technology do you **most often** promote within your school?

- ○ creating technology-rich, authentic learning environments
- ○ learning hardware and software specific skills
- ○ researching via the Internet and word processing
- ○ using technology for learning collaboratively within the classroom
- ○ I do not actively promote the use of technology at my school.

---

3. With which of the following statements do you agree?
(Check all that apply)

- ☐ Technology is a useful learning tool for some students
- ☐ All students should have the opportunity to benefit from the use of technology as a learning tool.
- ☐ Technology is an important tool for teaching and learning within the curriculum.
- ☐ Every teacher and student should routinely use proven technology strategies for teaching and learning.
- ☐ I am not yet convinced that technology will have a positive impact on teaching or learning.

---

4. As principal, which of the following is/are true for you?
(Check all that apply)

- ☐ I encourage parents and community members to participate in my school's technology program
- ☐ I strongly encourage my faculty to involve students in the use of technology in the classroom.
- ☐ I strongly encourage my faculty to become proficient users of technology
- ☐ I am working to become technology literate.
- ☐ I am not actively involved in promoting technology in any way at this time.

---

5. As principal, how often do you use technology in the following ways?

	Not at all	Once a month or less	Once a week	Several times a week	Every day
administrative tasks	○	○	○	○	○
analysis of student assessment information (e.g., FCAT scores)	○	○	○	○	○
desktop video production	○	○	○	○	○
email to other school or district staff	○	○	○	○	○
email to students or parents	○	○	○	○	○
presentations	○	○	○	○	○
research	○	○	○	○	○
video conferencing	○	○	○	○	○
webpage publishing	○	○	○	○	○

---

6. Please categorize in percentages the technology-related professional development that was offered to your staff the past year, according to the training models below.
(Percentages must total 100%).

_____ % coaching and modeling of best practices

_____ % electronic tutorial

_____ % hands-on instruction

_____ % lecture or demonstration

☐ I don't know

☐ Our staff is not offered technology-related professional development.

---

7. What percentage of your group technology training opportunities includes follow-up activities?

- ◯ 0%
- ◯ 1-24%
- ◯ 25-49%
- ◯ 50-74%
- ◯ 75-100%

---

8. Indicate the percentages of teacher training opportunities offered in the past year that fall into each of the following content categories.
(Percentages must total 100.)

_____ % administrative and management applications (e.g. grade books, lesson planning, record keeping,IEPs, data)

_____ % applications beyond those that are administrative or management (concept mapping, graphics, productivity suites, etc.)

_____ % basic computer skills (e.g. how to use the operating system and school network)

_____ % emerging technologies in education

_____ % integration of technology and curriculum

_____ % hardware and equipment (audio, video, projection, calculators, cameras, probes, handhelds, etc.), management systems, etc.

_____ % vendor specific (Including Compass, FCAT Explorer, SuccessMaker)

_____ % Web development

☐ No teacher training opportunities have been offered for technology within the last year.

---

9. Approximately what percentage of your teachers received training related to technology in the last year?

_____ %

10. Indicate the percentages of teachers who have received training in the following areas **within the last year.**

____ %	administrative and management applications (e.g. grade books, lesson planning, record keeping,IEPs, data applications beyond those that are administrative or management (concept mapping, graphics, productivity suites, etc.)
____ %	basic computer skills (e.g. how to use the operating system and school network)
____ %	emerging technologies in education
____ %	integration of technology and curriculum
____ %	hardware and equipment (audio, video, projection, calculators, cameras, probes, handhelds, etc.) management systems, etc.
____ %	networking
____ %	vendor specific (Including Compass, FCAT Explorer, SuccessMaker,
____ %	Web development
☐	No teacher training opportunities have been offered for technology within the last year.

Learners and Learning

1. Which one of the following best describes the learning environment **most often** found in your school?

- ◯ Students participate in electronic learning communities involving experts outside the school.
- ◯ Students participate in electronic learning communities within the classroom.
- ◯ Students collaborate with each other electronically as part of some classroom assignments.
- ◯ Electronic collaboration is not part of classroom instruction.
- ◯ Students participate in electronic learning communities with experts outside the local area.

2. Which one of the following is **the most common** approach to technology use in your school?

Technology is most commonly used as a

- ◯ method for delivery of instruction
  (e.g. lectures with PowerPoint, etc.).
- ◯ supplement to instruction
  (e.g. programs or games used for skill practice).
- ◯ tool for providing instruction
  (e.g. integrated learning system)

- tool integrated into core curriculum areas (e.g. word processors, spreadsheets, probes, etc.)
- tool embedded in daily instruction for all curriculum areas (e.g. word processors, spreadsheets, probes, etc.)

---

3. Which one of the following is the **most common** approach your teachers use when assigning projects using technology tools?

- The teacher specifies the technology tool to be used.
- The teacher recommends a variety of technology tools that can be used.
- The teacher allows the students to select any technology tool(s) they might want to use.
- The teacher permits the use of technology tools on an individual basis.
- The teacher does not allow the use of technology tools.

---

4. Which phrase best characterizes the **primary** way in which students at your school use technology in their class work?

- collaborating to propose, assess, and implement solutions to real-world problems
- researching and presenting by individual students on a variety of topics in several subject areas
- testing and practicing for skill mastery in core curriculum areas
- working with other students to analyze data and evaluate information
- Students do not use technology in their class work.

---

5. On average, in how many classes will a student at your school use computers as part of the course?

- 5+ classes
- 3-4 classes
- 1-2 classes
- In technical classes only (for the purpose of learning technology)
- Never

---

6. On average, how frequently will a student at your school use computers at school as part of his/her coursework?

- 4-5 days per week
- 2-3 days per week
- 1 day per week
- Less than one day per week

- ○ Never

---

7. How often do **students** at your school use the following types of software?

	Not at all	Once a month or less	Once a week	Several times a week	Every day
Drill and practice software	○	○	○	○	○
Integrated Learning Systems (ILS; comprehensive software with assessment, diagnostics, and computer-based curriculum)	○	○	○	○	○
Multimedia (e.g., paint/draw, desktop video, sound-editing)	○	○	○	○	
Simulation software	○	○	○	○	○
Tool-based software (e.g. graphic organizers, word processors, preadsheets, databases)	○	○	○	○	○

---

8. Which of the following tools do you use when sharing information with your community?
(*Check all that apply.*)

- ☐ classroom websites
- ☐ email
- ☐ print media: newsletters, newspaper, flyers, brochures, etc.
- ☐ radio broadcasting
- ☐ PTO/PTA website
- ☐ school website
- ☐ telephone homework hotline
- ☐ telephone activity hotline
- ☐ television broadcasting
- ☐ voice bulletins/voice mail
- ☐ no system in place

---

9. Which of the following contributions does your school technology program make to parents or the community?
(*Check all that apply.*)

- ☐ We are making an effort to increase technology awareness (e.g. PTA presentations, newsletters, websites, etc.).
- ☐ We offer access to technology at our school.

- [ ] We have partnered with our community to establish technology access centers in **locations** other than the school.
- [ ] We offer hands-on technology training.
- [ ] We have no program to increase awareness or provide access.



Accountability

1. Which of the following best describes the technology standards you have adopted for students?

- ◯ None
- ◯ standards that do not align with NETS-S*
- ◯ National Educational Technology Standards for Students (NETS-S) or other standards that align with NETS-S)

*National Educational Technology Standards for Students

---

2. How do you monitor **teacher** competency in technology? (check all that apply)

- [ ] classroom observation
- [ ] objective assessments
- [ ] performance assessments
- [ ] self assessments
- [ ] surveys
- [ ] time-tracking for technology-related professional development
- [ ] We do not monitor teacher competency in technology.

---

3. The Educator Accomplished Practice #12 (Technology) characterizes a teacher's personal and professional use of technology at three levels: pre-professional, professional, and accomplished.

Please enter the percentages (totaling 100) that best indicate the characteristics of teachers at your school.

_____ % Accomplished

_____ % Professional

_____ % Pre-professional

_____ % Not yet pre-professional

2004 STaR District Profile Overview

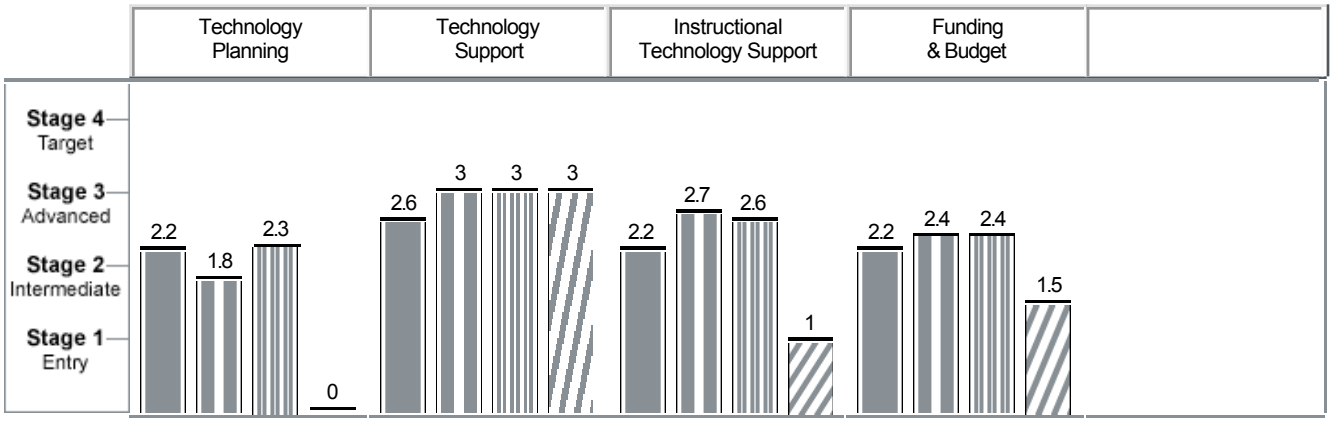
Schools: Broward county's averages for each school type.

Report Date: June 17, 2005

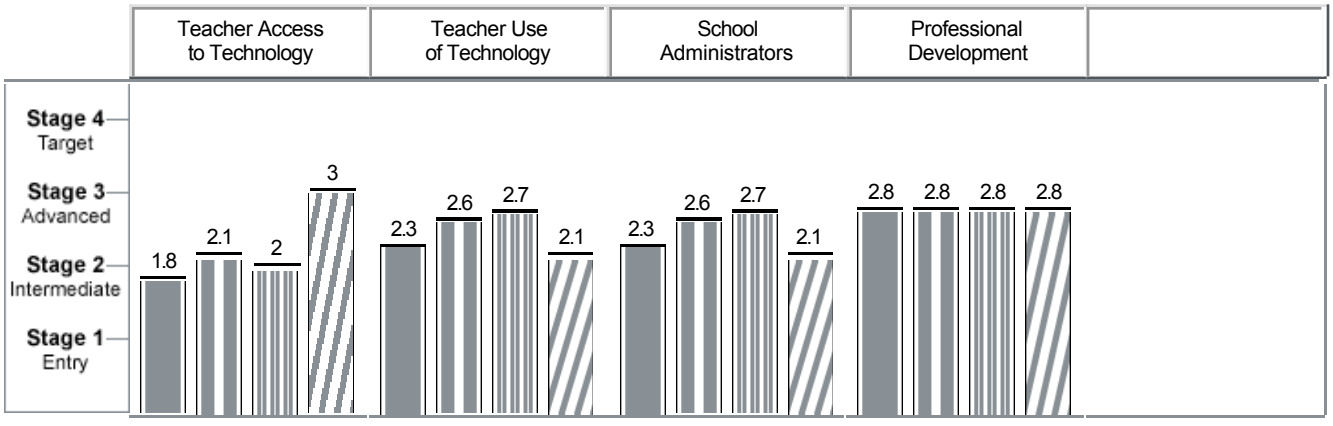
Legend

- Broward county elementary schools average
- Broward county middle/junior high schools average
- Broward county high schools average
- Broward county combination schools average

Technology Administration & Support

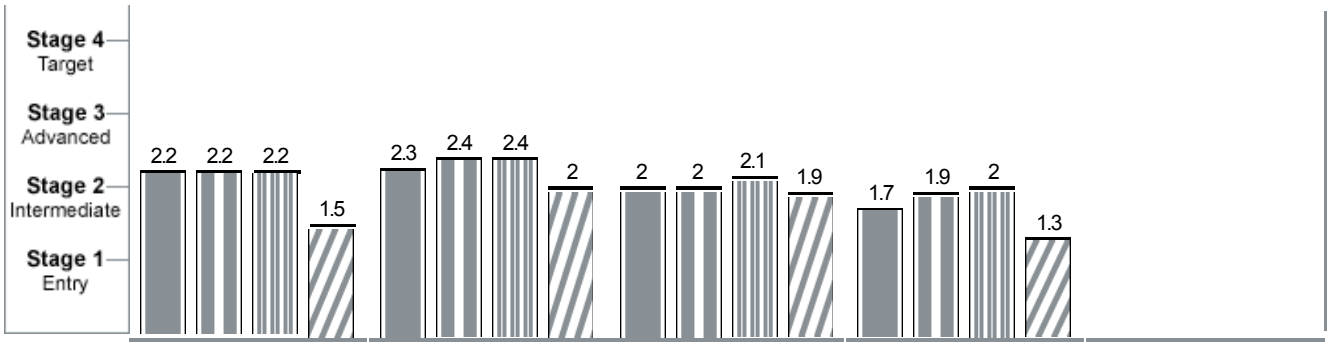


Educators & Technology

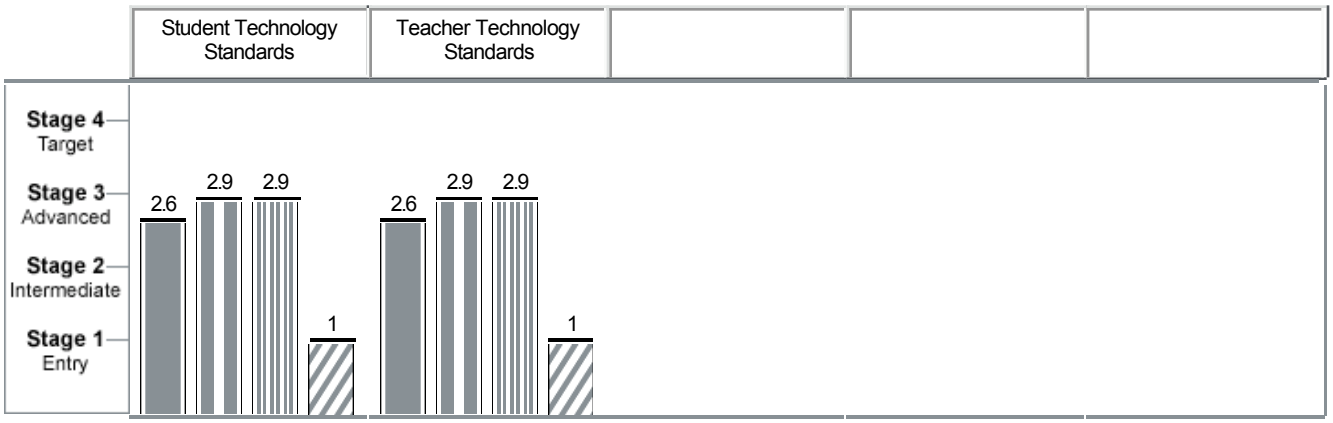


Learners & Learning





Accountability



Community



3.3
District Technology Goals

Project Center - ETS PMO Status Report 9-14-2005

Project Name	Start	Finish	% Complete	ETM	Business Manager	ETS Critical	Project Priority	Source or Blue Print Section	Project Duration Indicator	PMO STATUS	Comments
Area Superintendents	**2/10/2004**	**9/14/2005**									
ARS05001 School and Department based Technology Support	9/29/2004	5/4/2005	**100%**	Gieseking Linda	Gregg Sam	Yes	High	Section V.ODS1	Medium	Closed	CLOSED - pmo 5-4-2005
ARS05002 Meaningful Budget Conferences	1/3/2005	3/30/2005	**100%**	Moquin Denis	Smith Ron	No	Medium	SP.FN6	Short	Closed	CLOSED - pmo 5-25-2005
ARS05003 Qualified Instructors for School Budgeting	1/3/2005	9/14/2005	**29%**	Moquin Denis	Colton Sue	No	Medium	SP.FN7	Medium		
ARS05004 HRMS Positon Control	1/3/2005	3/21/2005	**100%**	Zielinski Paul	Remy Claude	Yes	High	SP.HR1	Short	Closed	CLOSED - pmo 5-12-2005
ARS05005 HRMS Separations	1/3/2005	3/21/2005	**100%**	Zielinski Paul	Cupo Rick	Yes	High	SP.HR3	Short		Complete - waiting for closeout form.
ARS05006 Check Sequencing	2/10/2004	7/29/2004	**100%**	Zielinski Paul	Cupo Rick	Yes	High	SP.HR8	Short	Closed	CLOSED - pmo 5-12-2005
Jim Notter	**7/1/2004**	**5/25/2007**									
COS05001 Program Level Planning	11/12/2004	7/22/2005	**100%**	Schmaus Becky	Terrel Nancy	No	Medium	Section IX.DSSP3	Medium	Closed	CLOSED - pmo 7-23-2005
COS05002 Catalog Equity Objectives	7/1/2004	6/30/2006	**30%**	Coluzzi Angela	MartinOgburn Dildra	No	High	Section VIII.PP2	Long		Re-Assigned 6-17-2005 km
COS05003 Grants Training	7/30/2004	8/15/2005	**48%**	Moquin Denis	Mandley Frank	No	Medium	SP.FN8	Long		
COS05004 E Mentoring	12/2/2004	5/25/2007	**6%**	Diamond Daryl	SchifferSimon Phyllis	No	Medium	Section III.TLT4	Long		Re-Assgined 6-17-2005 km
Dr Earlean Smiley	**5/9/2003**	**10/5/2007**									
CUR05001 Comprehensive Approach for Building a CDIM System	4/30/2004	10/5/2007	**46%**	Stanley Jeff	Stanley Jeff	No	High	Section II.CA1	Long		
CUR05002 Technology Standards Articulation and Alighnment Across the Curriculum	5/7/2004	9/12/2006	**65%**	Diamond Daryl	Gendron Jeanine	No	High	Section II.CA2	Long		
CUR05003 Curriculum and Technology Integration Approaches	8/3/2004	11/15/2006	**82%**	Coluzzi Angela	Gendron Jeanine	No	High	Section II.CA3	Long		
CUR05004 School and Community Technology Access Centers	1/3/2005	8/30/2007	**0%**	Diamond Daryl	Miracola John	No	Medium	Section XII.CAP2	Long		
CUR05005 Online and Computer Based Staff Development	5/9/2003	8/1/2005	**87%**	Stanley Chuck	Stanley Chuck	No	High	Section VI.SDT2	Long		
CUR05006 Digital Learning Environment Study	2/6/2004	9/30/2005	**85%**	Coluzzi Angela	Gendron Jeanine	No	High	Section IV.TLE1	Long		
CUR05007 Special Populations	11/1/2004	5/31/2006	**21%**	Diamond Daryl	Kelly Leah	No	High	Section IV.TLE1	Long		Re-Assgined 6-17-2005 km
CUR05008 Transform Role of Library Media to IT	4/18/2005	4/19/2006	**25%**	Diamond Daryl	Correll Barbara	No	High	Section III.TLT2	Long		
CUR05009 Student Technology Internship Program STIP	11/4/2004	3/30/2007	**28%**	Diamond Daryl	Miracola John	No	Low	Section III.TLT3	Long		
Vijay Sonty	**5/9/2003**	**12/26/2008**									
ETS05001 Enterprise Resource Planning	12/21/2004	12/26/2008	**8%**	Sonty Vijay		No	High	Section X.ADDS1	Long		Re-Assigned 6-17-2005 km
ETS05003 Document Management System	1/13/2005	3/28/2007	**5%**	Moquin Denis	Moquin Denis	No	Medium	Section X.ADDS3	Long		
ETS05004 Food Service Upgrade	3/4/2005	3/6/2006	**18%**	Moquin Denis	Moquin Denis	Yes	Medium	Section X.ADDS5	Long		
ETS05005 Data Warehouse Access Software Upgrade	1/3/2005	8/29/2005	**98%**	Stanley Jeff	Stanley Jeff	Yes	High	Section X.ADDS6	Medium		
ETS05006 County Wide Summit on Technology Learning and Economic Development	9/27/2004	5/17/2005	**100%**	Gieseking Linda	Gieseking Linda	Yes	Medium	Section XII.CAP3	Medium	Canceled	CLOSED - pmo 3-22-05 Project was canceled 11-15-04
ETS05007 School and Work Day Continuity Plan	1/30/2006	1/16/2007	**0%**	Stanley Chuck	Stanley Chuck	No	Low	Section XII.CAP4	Long		
ETS05008 RFP Development and Funding Options	10/15/2004	4/27/2005	**100%**	Coluzzi Angela	Coluzzi Angela	Yes	High	Section XI.CNI1	Medium	Closed	CLOSED - pmo 5-20-2005
ETS05009 AS400 Consolidation	11/10/2004	9/9/2005	**74%**	Stanley Chuck	Stanley Chuck	Yes	Medium	Section XI.CNI9	Medium		
ETS05010 Data Center Printers	7/1/2004	6/30/2005	**100%**	Sullivan Brian	Sullivan Brian	No	Medium	Section XI.CNI10	Medium	Closed	CLOSED - pmo 7-5-2005

	Project Name	Start	Finish	% Complete	ETM	Business Manager	ETS Critical	Project Priority	Source or Blue Print Section	Project Duration Indicator	PMO STATUS	Comments
	ETS05011 Establish a School and Department Continuity Plan	4/1/2005	6/13/2006	**14%**	Stanley Chuck	Fulop Ken	No	Medium	Section XI.CNI11	Long		
	ETS05012 Central Software Distribution	1/3/2005	2/14/2006	**47%**	Stanley Chuck	Stanley Chuck	No	High	Section XI.CNI12	Long		
	ETS05013 Network Service Quality	1/3/2006	2/27/2007	**0%**	Stanley Chuck	Stanley Chuck	No	Medium	Section XI.CNI2	Long		
	ETS05014 WAN Strategy	10/3/2005	8/8/2006	**5%**	Stanley Chuck	Stanley Chuck	No	High	Section XI.CNI3	Medium		
	ETS05015 Communications Systems Convergence	1/3/2005	10/12/2005	**0%**	Stanley Chuck	Stanley Chuck	No	High	Section XI.CNI4	Medium		
	ETS05016 Portable Building Network Connectivity	7/1/2004	9/9/2005	**76%**	Coluzzi Angela	Coluzzi Angela	No	High	Section XI.CNI5	Long		
	ETS05017 Network Authentification	4/1/2005	5/29/2006	**29%**	Stanley Chuck	Stanley Chuck	No	Medium	Section XI.CNI6	Long		
	ETS05018 ITFS Wireless Strategy	1/3/2005	3/21/2005	**0%**	Stanley Chuck	SchifferSimon Phyllis	No	Medium	Section XI.CNI7	Short		
	ETS05020 Communication Continuity Plan	10/3/2005	9/29/2006	**2%**	Stanley Chuck	Stanley Chuck	No	Medium	Section XI.CNI8	Long		
	ETS05021 Strategic Management System for the School District	9/10/2004	7/25/2005	**98%**	Schmaus Becky	Schmaus Becky	No	Medium	Section XIII.ME1	Medium	Closed	CLOSED - pmo 7-23-2005
	ETS05023 Establish a Project Management Office	9/23/2004	3/1/2005	**100%**	Schmaus Becky	Schmaus Becky	Yes	High	Section XIII.ME3	Medium	Closed	CLOSED - pmo 3-15-2005
	ETS05025 Service Level Management	11/3/2004	6/23/2005	**80%**	Baker Mary	Baker Mary	No	High	Section V.ODS2	Short		
	ETS05026 Catalog Technology and Information Processes Procedures	1/3/2005	1/13/2006	**7%**	Baker Mary	Baker Mary	No	High	Section VIII.PP1	Long		Re-Assgined 6-17-2005 km
	ETS05027 Appoint District Continuity Project Manager	1/24/2005	5/20/2005	**100%**	Stanley Chuck	Stanley Chuck	No	Medium	SP.DR1	Short	Closed	CLOSED - pmo 5-20-2005
	ETS05028 School and Department Checklist For Continuity Plan	1/3/2005	4/29/2005	**100%**	Stanley Chuck	Fulop Ken	No	High	SP.DR2	Short	Closed	CLOSED - pmo 5-31-05
	ETS05029 BCPS - Kronos Time Management Workforce	10/15/2004	1/11/2006	**47%**	Moquin Denis	Moquin Denis	Yes	High	SP.HR14	Long		
	ETS05030 Mainframe Upgrade Project	3/1/2004	3/29/2005	**100%**	Stanley Chuck	Kemp Joe	No	Medium	SP.MF1	Long	Closed	CLOSED - pmo 5-19-2005
	ETS05031 Year End Load Reduction	4/14/2004	5/24/2004	**100%**	Zielinski Paul		Yes	High	SP.MF2	Short	Closed	CLOSED - pmo 5-12-2005
	ETS05032 ReEstablish Technology Standards Committee	3/1/2004	4/27/2005	**100%**	Coluzzi Angela	Barrs Barbara	Yes	High	Section VII.SPMI1	Long	Closed	CLOSED - pmo 6-2-2005
	ETS05033 Total Cost of Ownership	1/10/2005	8/12/2005	**100%**	Baker Mary	Baker Mary	Yes	High	Section VII.SPMI2	Medium	Closed	CLOSED - pmo 8-22-05
	ETS05037 Compass Learning Odyssey Upgrade	9/22/2004	8/30/2005	**98%**	Stanley Jeff	Stanley Jeff	Yes	High	ETS	Medium		
	ETS05039 Digital Divide	10/11/2004	11/10/2005	**66%**	Baker Mary	Baker Mary	No	Medium	ETS	Medium		
	ETS05040 Transition Project Management	8/2/2004	3/17/2005	**100%**	Pierre Winston	Pierre Winston	Yes	High	PHASE III	Medium	Closed	CLOSED - pmo 4-15-2005
	ETS05041 Operating System and Memory Upgrade for Computers	1/3/2005	9/27/2005	**15%**	Coluzzi Angela	Coluzzi Angela	Yes	High	ETS	Medium		
	ETS05042 Change Management	10/5/2004	2/3/2005	**100%**	Baker Mary	Baker Mary	Yes	High	PHASE III	Short	Closed	CLOSED - pmo 3-15-2005
	ETS05044 Support of Digital Learning Environment	4/13/2004	6/7/2005	**85%**	Coluzzi Angela	Coluzzi Angela		High	ETS	Short		
	ETS05045 Broward Parentlink Project	5/9/2003	6/2/2005	**100%**	Coluzzi Angela			Medium	ETS	Long	Closed	CLOSED - pmo 6-2-2005
	ETS05046 Education Technology Plan	3/3/2005	10/19/2005	**96%**	Baker Mary		Yes	High	ETS	Medium		
	ETS05047 Customer Relationship Management CRM Implementation	4/11/2005	9/6/2005	**48%**	Gieseking Linda		No	Medium	ETS	Short		
	ETS05048 District Wireless Network Implementation	6/16/2004	6/1/2005	**99%**	Coluzzi Angela	Coluzzi Angela	Yes	Medium	ETS	Medium	Open	
	ETS05049 Student Technology Refresh	2/4/2005	12/15/2005	**45%**	Coluzzi Angela	Coluzzi Angela	Yes	High	Section IV.TLE5	Medium		
	ETS06001-0 Project Knexus, Workplace for Education Pilot	7/20/2005	11/9/2005	**16%**	Schmaus Becky		Yes		ETS	Medium		
	Mike Garretson	**1/3/2005**	**6/17/2005**									
	FAC05001 Technical Infrastructure for School Facilities	1/3/2005	3/18/2005	**100%**	Coluzzi Angela	Getz Tom	No	High	Section IV.TLE4	Short	Closed	CLOSED - pmo 5-19-2005
	FAC05002 Technology Enhancement Upgrade and Refresh Plan	2/4/2005	6/17/2005	**100%**	Coluzzi Angela	Getz Tom	Yes	High	Section IV.TLE5	Short	Closed	CLOSED - pmo 6-17-2005

	Project Name	Start	Finish	% Complete	ETM	Business Manager	ETS Critical	Project Priority	Source or Blue Print Section	Project Duration Indicator	PMO STATUS	Comments
	Ben Leong	**3/19/2004**	**6/2/2005**									
	FIN05001 HRMS Combine Use 6 and 0	8/3/2004	1/25/2005	**100%**	Moquin Denis	Turner Jane	Yes	High	SP.FN1	Short	Closed	CLOSED - pmo 5-25-2005
	FIN05002 SA IA Review	9/9/2004	12/22/2004	**100%**	Moquin Denis	Turner Jane	No	Medium	SP.FN10	Short	Closed	CLOSED - pmo 5-26-2005
	FIN05003 Budget Communications	4/15/2004	12/21/2004	**100%**	Moquin Denis	Moquin Denis	No	Low	SP.FN11	Medium	Closed	CLOSED - pmo 5-26-2005
	FIN05004 Reduce Number of Required Signatures	8/3/2004	4/21/2005	**100%**	Moquin Denis	Robinson Henry	Yes	High	SP.FN2	Medium	Closed	CLOSED - pmo 5-24-2005
	FIN05005 Change Budget Schedules Preparation	9/7/2004	2/28/2005	**100%**	Moquin Denis	Turner Jane	No	Medium	SP.FN4	Short	Closed	CLOSED - pmo 5-26-2005
	FIN05006 Year End Closing	1/3/2005	5/13/2005	**100%**	Moquin Denis	Grimm Melissa	No	Medium	SP.FN9	Short	Closed	CLOSED - pmo 5-17-2005
	FIN05007 Financial Reports	3/19/2004	6/2/2005	**100%**	Moquin Denis	Turner Jane	No	Medium	SP.FN14	Long		
	Dan Cochran	**3/17/2004**	**4/2/2007**									
	HRS05001 Conversion to district Wide Bi Weekly Payroll	12/13/2004	7/29/2005	**64%**	Sonty Vijay	Suarez Marta	No	High	SP.HR5	Medium		Re-Assigned 6-17-2005
	HRS05002 Staff Development Planning and Management System	7/1/2004	4/2/2007	**22%**	Diamond Daryl	Butler Leontine	No	High	Section VI.SDT1	Long		Re-Assigned 6-17-2005 pz
	HRS05003 Turn on Tracking	10/1/2004	12/14/2004	**100%**	Zielinski Paul	Suarez Marta	Yes	High	SP.HR10	Short	Closed	CLOSED - pmo 5-12-2005
	HRS05006 HRMS PAF	3/16/2005	5/18/2005	**100%**	Zielinski Paul	Suarez Marta	Yes	High	SP.HR2	Short		CLOSED - pmo 6-2-2005
	HRS05007 HRMS Leaves	3/31/2004	7/1/2004	**100%**	Zielinski Paul	Cochran Dan	Yes	High	SP.HR4	Short	Closed	CLOSED - pmo 5-12-2005
	HRS05008 HRMS Retroactive Changes	3/17/2004	4/21/2004	**100%**	Zielinski Paul	Suarez Marta	No	High	SP.HR7	Short	Closed	CLOSED - pmo 6-3-2005
	HRS05009 HRMS ZA 71 Changes	6/14/2004	11/18/2004	**100%**	Zielinski Paul	Suarez Marta	Yes	High	SP.HR9	Short	Closed	CLOSED - pmo 5-12-2005
	Dr Katherine Blasik	**10/8/2004**	**8/1/2005**									
	RAE05001 Online Assessment Tools	5/17/2005	8/1/2005	**20%**	Stanley Jeff	Kraft Kimberly	No	Medium	Section II.CA4	Short		CELT doing RFP
	RAE05002 Student Information Systems Review	10/8/2004	4/8/2005	**97%**	Stanley Jeff	Eyerman Gina	Yes	Medium	Section X.ADDS4	Short		
	Special Investigative Unit	**6/8/2005**	**3/3/2006**									
	SIU06002 Security Tracking & Response System (STAR) Fast Tracking Implementation	6/8/2005	3/3/2006	**24%**	Stanley Chuck	Laverde Jose	No	Medium		Medium		
	Dr Nancy Terrel	**11/12/2004**	**7/11/2007**									
	STP05001 Community Access and Engagement Plan	11/16/2004	6/30/2005	**46%**	Baker Mary	Bromery Keith	No	Medium	Section XII.CAP1	Medium		Re-Assigned 6-17-2005 km
	STP05002-0 Strategic Management System for the School District Pilot	11/12/2004	9/27/2005	**34%**	Schmaus Becky	Terrel Nancy	No	High	Section IX.DSSP1	Medium		Re-Assigned 6-17-2005 km
	STP05004 Distance Learning	1/10/2005	7/11/2007	**45%**	Diamond Daryl	Baker Mary	No	High	Section IV.TLE2	Long		
	STP05005 Virtual Advanced Community Learning Centers	1/3/2005	8/15/2006	**78%**	Diamond Daryl	SchifferSimon Phyllis	No	Low	Section IV.TLE3	Long		
	User Name: Schmaus Becky											
	becky.schmaus@browardschools.com											
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PMO – Project Descriptions

Project Name	Project Description	Source or Blue Print Section	PMO STATUS	Comments	ETM	Business Manager	Sponsoring Department
ARS05001 School and Department based Technology Support	This project focuses on the IT organizational and developmental needs at schools and departments. It proposes to develop, and implement a technology support staffing plan that addresses the technical needs for all schools and departments with emphasis on both support and integration.	Section V.ODS1	Closed	CLOSED - pmo 5-4-2005	Gieseking Linda	Gregg Sam	Area Superintendents
ARS05002 Meaningful Budget Conferences	In order to make budget conferences more meaningful, allocate more time and include individual schools' needs. Area Superintendents, Area Directors, Area ESE Coordinators, Area Business Analysts, Instructional Staffing Representatives, and a Title One Representative will be scheduled to attend the budget conferences.	SP.FN6	Closed	CLOSED - pmo 5-25-2005	Moquin Denis	Smith Ron	Area Superintendents
ARS05003 Qualified Instructors for School Budgeting	Make the budget training more effective by having qualified instructors who can explain the philosophies of budgeting, not just the "how to's".	SP.FN7			Moquin Denis	Colton Sue	Area Superintendents
ARS05004 HRMS Position Control	The Position Control process currently in place was designed and implemented in response to the RFP requirements of the HR/Payroll implementation in 2000. These business processes requirements resulted in a cumbersome process that resides, for the most part, outside the SAP software. Recent staffing changes at the Area Offices and the decentralization of the control processes has significantly improved the efficiency of the Position Control effort. The review committee will determine if additional changes are needed and, if so, when would be the appropriate time to make them, i.e., should we wait for the mandatory upgrade to the SAP system to make best use of SAP's latest functionality or is the need important enough to address the changes in 4.6B.	SP.HR1	Closed	CLOSED - pmo 5-12-2005	Zielinski Paul	Remy Claude	Area Superintendents
ARS05005 HRMS Separations	The Area Business Analyst (Business Project Manager) would like to identify an automated way for a payroll contact to notify the Payroll Department to "Lock" the employee's record once notified that the employee has terminated. Currently they are required to place a call to Payroll Department after the local payroll contact has stopped payment for the employee at their location. The current method is highly ineffective.	SP.HR3		Complete - waiting for closeout form.	Zielinski Paul	Cupo Rick	Area Superintendents

PMO – Project Descriptions

ARS05006 Check Sequencing	Paychecks and Pay Advices should be delivered to locations in alphabetical order and in one group. The SAP System is delivering the documents in alphabetical order but is separating checks from advices. This project represents a cost saving approach, so as not to print Pay Advices on expensive watermarked paper. As the District converts to mandatory Direct Deposit, there will only be one set of alphabetized documents delivered to locations.	SP.HR8	Closed	CLOSED - pmo 5-12-2005	Zielinski Paul	Cupo Rick	Area Superintendents
COS05001 Program Level Planning	Develop a system-wide method to manage the interdependencies across program-level planning initiatives. Utilize a budgeting process that analyzes the TCO (total cost of ownership) of each program and align those programs with District strategic plans and budgets. Include district level measures of performance.	Section IX.DSSP 3			Schmaus Becky	Terrel Nancy	Chief of Staff
COS05002 Catalog Equity Objectives	Establish and maintain a process system to ensure that technology resources are equitable and accessible to all students throughout the district as defined by the Citizens Concerned about our Children (CCC) settlement agreement.	Section VIII.PP2			Coluzzi Angela	MartinOgburn Dildra	Chief of Staff
COS05003 Grants Training	The Grants Administration & Government Programs Department will provide training and information to allow schools to obtain more competitive grants. This includes, but is not limited to how to find and monitor available grants, the purpose of the grant opportunities, and how to respond to grant applications.	SP.FN8			Moquin Denis	Mandley Frank	Chief of Staff
COS05004 E Mentoring	Establish a district-wide e-mentoring program that leverages the power of the Internet to electronically connect students with mentors in the school district and in the community. The e-mentor initiative will expand opportunities for individuals in the community to act as a resource for students.	Section III.TLT4			Diamond Daryl	SchifferSimon Phyllis	Chief of Staff
CUR05001 Comprehensive Approach for Building a CDIM System	BCPS continues the development of the CD/IM application. District leadership identifies the modules that are most important and/or of highest priority and focuses district resources (funding and manpower) on these components. This includes the development and implementation of tools which assure that administrators, teachers, students and parents have access to appropriate curriculum and instructional information to meet school achievement objectives.	Section II.CA1			Stanley Jeff	Stanley Jeff	Curriculum

PMO – Project Descriptions

CUR05002 Technology Standards Articulation and Alignment Across the Curriculum	Fully integrate the National Education Technology Standards for students into the Broward curriculum standards and district curriculum frameworks for all levels in all discipline areas.	Section II.CA2			Baker Mary	Gendron Jeanine	Curriculum
CUR05003 Curriculum and Technology Integration Approaches	Focus instruction at all levels in all disciplines toward appropriate instructional strategies including project-based learning, acceleration and independent practices. Support these approaches to teaching and learning with the development of scientifically researched best practice technology and curriculum integration strategies. Develop selection criteria for specific content/course applications.	Section II.CA3			Coluzzi Angela	Gendron Jeanine	Curriculum
CUR05004 School and Community Technology Access Centers	Focus efforts of the Career, Technical and Adult/Community Education, district, and school leadership to provide community access to educational services/programs and technology required to effectively utilize the various web-based resources that are part of the Information Technology Blueprint.	Section XII.CAP2			Baker Mary	Miracola John	Curriculum
CUR05005 Online and Computer Based Staff Development	Continue to deliver training in required proficiencies through a variety of training delivery methods, including online and computer-based delivery, video-based tutorials, just in time training, classroom coaching and mentoring.	Section VI.SDT2			Stanley Chuck	Stanley Chuck	Curriculum
CUR05006 Digital Learning Environment Study	Define, implement and evaluate learning environments at the elementary and secondary levels to support digital learning, virtual learning and community outreach for all students, including students with disabilities and students who have limited proficiency in English. These learning environments are based upon scientifically researched best practice teaching and learning strategies.	Section IV.TLE1			Coluzzi Angela	Gendron Jeanine	Curriculum
CUR05007 Special Populations	Explore, develop, pilot and expand scientifically researched, best practice teaching/learning strategies to address the unique needs of the district's students with disabilities through the integration of appropriate technologies.	Section IV.TLE1			Diamond Daryl	Kelly Leah	Curriculum
CUR05008 Transform Role of Library Media to IT	This project focuses on assuring that library media centers attain their full potential and play a leadership role in developing information literate students and lifelong learners. Emphasis is on staff, information literacy skills collaboratively taught, school climate, facilities, and resources.	Section III.TLT2			Coluzzi Angela	Correll Barbara	Curriculum

PMO – Project Descriptions

CUR05009 Student Technology Internship Program STIP	Provide various mentoring, job shadowing, internship, and paid on-the-job training opportunities for students in the various IT related career and technical programs. Collaboration between the ETS Department and the schools will enhance the instructional programs, give students the opportunity to apply academic and technical competencies in the IT related jobs, and help to develop a cadre of trained IT workers for the district.	Section III.TLT3			Baker Mary	Miracola John	Curriculum
ETS05001 Enterprise Resource Planning	Evaluate and implement a comprehensive Enterprise Resource Planning (ERP) solution for the district, based on business process audit and interoperability with related applications. The solution would encompass financial management, budget, purchasing, human resources management (including the automated collection of staff attendance and labor data), facilities management, asset management, materials management, construction management, transportation, and customer resource management applications. Additionally it should provide a data warehouse to support the ERP data and be integrated to the existing student data warehouse.	Section X.ADDS1			Sonty Vijay		ETS
ETS05003 Document Management System	Implement an Integrated Document Archival and Retrieval System (IDARS), to include a Distributed Output Management (DOM) system. To reduce redundancy and wasted time generating, retrieving, distributing, and archiving documents and forms, SBBC needs to investigate the benefits of implementing a document management system.	Section X.ADDS3			Moquin Denis	Moquin Denis	ETS
ETS05004 Food Service Upgrade	Review the current Point of Sale (POS) system used in the Food & Nutrition department and recommend upgrade or replacement.	Section X.ADDS5			Moquin Denis	Moquin Denis	ETS
ETS05005 Data Warehouse Access Software Upgrade	Upgrade the data warehouse query, reporting and analysis tool (BRIO) with a version that supports current Web browsers on Macintosh and Windows computers to improve access to data. The new software, Hyperion Performance Suite, should allow for the creation of dashboard summary views that assist school and district administrators in monitoring school performance.	Section X.ADDS6			Stanley Jeff	Stanley Jeff	ETS
ETS05006 County Wide Summit on Technology Learning and Economic Development	This project focuses on holding a Regional Summit on Technology, Learning and Economic Development for the 21st Century. This summit explores linkages for a Citywide Integrated Information Technology System in support of learning and economic development to enhance the connectivity among home, school and community.	Section XII.CAP3	Canceled	CLOSED - pmo 3-22-05 Project was canceled 11-15-04	Gieseking Linda	Gieseking Linda	ETS

PMO – Project Descriptions

ETS05007 School and Work Day Continuity Plan	Study the implications of community connectivity to quantify issues of cost, user support, service quality expectations, security, equity, and protection. Continuation of the school day from home and off-site locations, access to ILS systems located in schools, and the Web, including delivery of training and support.	Section XII.CAP4			Stanley Chuck	Stanley Chuck	ETS
ETS05008 RFP Development and Funding Options	Continue to utilize E-Rate funding as build out-of-network and communication systems reaches completion. Research additional district facilities that could use E-rate and align with the annual E-rate funding cycle. Develop Request for Proposals and/or bids that are required for equipment and service purchases.	Section XI.CNI1	Closed	CLOSED - pmo 5-20-2005	Coluzzi Angela	Coluzzi Angela	ETS
ETS05009 AS400 Consolidation	The AS/400s currently in the schools are 5 years old and are in need of replacement. This project will upgrade the district AS/400s in order to allow a centralized version of TERMS to run, thus eliminating the primary need for the AS/400 in the school.	Section XI.CNI9			Stanley Chuck	Stanley Chuck	ETS
ETS05010 Data Center Printers	The Computer Operations Center at Education Technology Services is replacing two IBM3900 high speed laser printers with newer models. The IBM4000 printer can produce 324 images per minute (IPM) in simplex/landscape mode. This is an increase of 90 IPM. The printers have the capability of creating a more readable page by providing higher print resolutions using IBM's Print Quality Enhancement technology. New forms can be created in-house and existing forms easily modified using IBM Advanced Function Printing (AFP) architecture. AFP is currently used and fully supported by the new printers. The printers come with an Enhanced Operator Console utilizing an intuitive graphical user interface (GUI) that allows the computer operators to control the printer functions, monitor the printer operations and consumables usage, and resolve printer issues on-line. The procurement of these new printers will allow the Computer Operations Center to continue to meet the current printing demands of the School District and be prepared to handle future printing requirements.	Section XI.CNI10			Sullivan Brian	Sullivan Brian	ETS

PMO – Project Descriptions

ETS05011 Establish a School and Department Continuity Plan	Implement continuity plans for information systems at the school and department level. Integrate application owners, stakeholders, and constituents into the central data disaster recovery processes. The disaster recovery project was engaged to develop disaster recovery and business continuity plans to sustain information and systems supporting the critical processes in schools and departments.	Section XI.CNI11			Stanley Chuck	Fulop Ken	ETS
ETS05012 Central Software Distribution	Implement a centralized software distribution system to deliver applications and desktop images, manage licensing, and distribute updates. Integrate with single sign-on initiative.	Section XI.CNI12			Stanley Chuck	Stanley Chuck	ETS
ETS05013 Network Service Quality	Configure networking, communication, and computing processes toward a customer-oriented perspective to improve the quality of service delivery by establishing service-level agreements that focus on the customer's expectations of service objectives.	Section XI.CNI2			Stanley Chuck	Stanley Chuck	ETS
ETS05014 WAN Strategy	Establish a steering committee to develop a strategic plan to guide WAN development for the next five years. This plan should assess the opportunity for partnership with the county to develop a county-wide fiber backbone, the current deployment plan using BellSouth for fiber to the schools, and how an Instructional Television Fixed Service (ITFS) wireless capability might supplement capacity and provide redundancy. Consideration should be given to the potential E-Rate discounts for each of the approaches. Define capabilities, limitations, and benefits for deployment of both wired and wireless wide area networks.	Section XI.CNI3			Stanley Chuck	Stanley Chuck	ETS
ETS05015 Communications Systems Convergence	Assess the implications of convergence of communication systems and video distribution onto the data network. Study communication needs and the means for communication to align closely the technology capabilities with user requirements. Consider ways to consolidate technologies while improving capabilities and reducing costs. Create a strategic plan for migration of security, surveillance, and safety systems into the digital environment for facilities management and student transportation.	Section XI.CNI4			Stanley Chuck	Stanley Chuck	ETS
ETS05016 Portable Building Network Connectivity	Complete expansion of communications infrastructure to all portable buildings to ensure the equity of network access to all students and staff.	Section XI.CNI5			Coluzzi Angela	Coluzzi Angela	ETS

PMO – Project Descriptions

ETS05017 Network Authentification	Continue to develop a comprehensive solution for network authentication, single sign-on and user management. Develop options that address service to Macintosh and Windows users, legacy applications, critical desktop applications, existing Macintosh and Windows servers and the existing AS/400 NT server cards. Develop a pilot implementation to test options and develop a final solution. Define exceptions to the single sign-on model including legacy applications and incompatible operating systems and develop migration plans for each. Implement the solution in all sites.	Section XI.CNI6			Stanley Chuck	Stanley Chuck	ETS
ETS05018 ITFS Wireless Strategy	Assess wireless connectivity to schools and possibly to community. Make recommendations on the way reliable, high-bandwidth services should be delivered to schools. Explore microwave frequency Instructional Television Fixed Service (ITFS) as an enhancement or supplemental capability to the Wide-Area Network (WAN).	Section XI.CNI7			Stanley Chuck	SchifferSimon Phyllis	ETS
ETS05020 Communication Continuity Plan	Develop a service continuity plan to provide communication services during crisis and disaster situations, and investigate linkages to homeland security issues.	Section XI.CNI8			Stanley Chuck	Stanley Chuck	ETS
ETS05021 Strategic Management System for the School District	Design, develop and implement a strategic management system (SMS) that includes processes, structures, and tools for monitoring the implementation of the Information Technology Blueprint and evaluating the impact on learning outcomes. This system will track schedules, resource allocations and fidelity to required program components. This project should be expanded to include a system that can be used throughout the district for strategic planning.	Section XIII.ME1			Schmaus Becky	Monaghan Kevin	ETS
ETS05023 Establish a Project Management Office	Establish a project management office to align all implementation initiatives to the Sterling model of Plan, Do, Study and Act. The project management office oversees the implementation of projects to assure that project plans use performance measures that include customer satisfaction and student achievement. Implement a centralized office for the coordination, monitoring and control of all district initiatives to contribute to the successful completion of BCPS projects and provide a holistic understanding of project issues and dependencies	Section XIII.ME3	Closed	CLOSED - pmo 3-15-2005	Schmaus Becky	Schmaus Becky	ETS

PMO – Project Descriptions

ETS05025 Service Level Management	Provide the framework to develop and implement standards of service and IT service level agreements (SLA's). A SLA defines a level of service and responses to that service level are tracked. The goal is to increase the speed of service, to decrease the number of calls, and increase the satisfaction of the end users. At the end of a set time period, or a school year, the SLAs are examined to see how they can be made more responsive to the users. In addition, after the first SLAs are established, additional ones for the most widely used applications are created. This project installs automated "probes" to proactively monitor five mission-critical applications and to dynamically report performance levels via a "IT Service Catalog" website.	Section V.ODS2			Baker Mary	Baker Mary	ETS
ETS05026 Catalog Technology and Information Processes Procedures	Develop a comprehensive technology catalog of information processes and procedures with hierarchies and categories for easy access, and keyword search, to include an interactive web-based user access point for the management of the system. Review existing processes and procedures and propose to remove those that are duplicated or outdated. System will eventually be expanded to include all district processes and procedures as they relate to systems and technology. Align processes and procedures with user needs and business systems requirements. A unified, relevant catalog of processes and procedures will make a stronger connection between the strategic objectives of BCPS and the teachers, administrators and staff while easy access motivates compliance and provides clear directions for identified situations and circumstances.	Section VIII.PP1			Baker Mary	Baker Mary	ETS
ETS05027 Appoint District Continuity Project Manager	Establish a new position within ETS to manage Information Security and Continuity Planning	SP.DR1	Closed	CLOSED - pmo 5-20-2005	Stanley Chuck	Stanley Chuck	ETS
ETS05028 School and Department Checklist For Continuity Plan	Schools and Departments create site-based databases for local data. There is no consistent strategy for protecting this data in the event of data loss or disaster. This project establishes a checklist to assist schools in identifying vulnerabilities that should be considered when developing disaster recovery procedures.	SP.DR2	Closed	CLOSED - pmo 5-31-05	Stanley Chuck	Fulop Ken	ETS
ETS05029 Time Management Broward County Workforce	This project automates time management in several areas and improves payroll processing in other areas. Manual entry and duplicate entry will be eliminated and process improvements will simplify the handling of substitute teacher pay. (KRONOS)	SP.HR14			Moquin Denis		ETS

PMO – Project Descriptions

ETS05030 Mainframe Upgrade Project	The mainframe upgrade project evaluates and provides a framework for decisions relevant to the mainframe and central computing resources. The objective is to mitigate the mainframe demand problem over the last fiscal year quarter thus simplifying and clarifying the means to develop a strategy to upgrade, use and maintain the mainframe over the next several years.	SP.MF1		Complete - waiting for closeout form	Stanley Chuck	Kemp Joe	ETS
ETS05031 Year End Load Reduction	The SAP Support Center successfully met all Year-End reporting requirements and timelines for the 2003 - 2004 school year. This included not only all internal reporting but the COST Report that is required for submission to the State of Florida. The CELT organization did provide an alternative Labor Report that can be run in those months when computing resources are being taxed and reporting deadlines are in risk. This alternative report does sacrifice a slight degree of accuracy and will only be used when necessary. To date, there has not been the need to utilize this alternative report.	SP.MF2	Closed	CLOSED - pmo 5-12-2005	Zielinski Paul		ETS
ETS05032 ReEstablish Technology Standards Committee	This committee will ensure interoperability of all elements of the system, to lower procurement costs, and to simplify maintenance, support, and asset management to reduce total cost of ownership. A designated standards committee with representatives from all district technology users was created to establish these standards and then monitor adherence to them on an ongoing basis.	Section VII.SPMI 1	Closed	CLOSED - pmo 6-2-2005	Coluzzi Angela	Barrs Barbara	ETS
ETS05033 Total Cost of Ownership	Develop a total cost of ownership (TCO) model for communication, computing, and network systems in order to understand clearly present and future cost of services to evaluate better proposed enhancements and generate cost/benefit analysis for administrative decisions. Develop a baseline TCO for the district.	Section VII.SPMI 2			Baker Mary	Baker Mary	ETS
ETS05037 Compass Learning Odyssey Upgrade	Schools using the client-based CompassLearning Classic software will migrate to the web-based Odyssey software that can be run centrally from ETS and is accessed via our wide-area network. This removes the technical support requirement for the workstation and the server from the school and also allow for the integration of Odyssey with TERMS and our data warehouse.	ETS			Stanley Jeff	Stanley Jeff	ETS

PMO – Project Descriptions

ETS05039 Digital Divide	The Digital Divide program has a goal of eliminating the gap between people and communities who can make effective use of information technology and those who cannot. The vision is to develop a comprehensive program that aligns district resources with community and business partners to provide home computing capabilities to low-income families. The initial thrust will be to refurbish surplus SBBC computers and distribute them to Title I families, after they complete technology literacy training. The computers will have educational programs installed for the students. Second level training for parents will introduce internet access.	ETS			Baker Mary	Baker Mary	ETS
ETS05040 Transition Project Management	Provide transition and implementation support to the Broward County Public Schools for the BETS Blueprint. Two major activities are provided. (1) Focus on gaining stakeholder understanding and support for the Blueprint. During this Phase, specific projects will be clearly defined, owners assigned, and projects delineated by time frames. (2) Focus on implementation of the specific projects, developing case data needed for continued implementation in future years, and monitoring/evaluating the progress of implementation. During this Phase direct assistance to assigned owners and leaders will be provided	PHASE III	Closed	CLOSED - pmo 4-15-2005	Pierre Winston	Pierre Winston	ETS
ETS05041 Operating System and Memory Upgrade for Computers	Upgrade operating systems (MAC OS 10.3 and PC Win XP) and memory in all eligible computers throughout the District, to provide a district license to allow sites to bring all applicable platforms up to the same level.	ETS			Coluzzi Angela	Coluzzi Angela	ETS
ETS05042 Change Management	A change management process is defined as “the process of planning, coordinating, and monitoring changes affecting an organization’s computing resources (network, workstations, servers/mainframes and applications) in order to ensure availability, responsiveness and customer satisfaction”. This project defines and implements a technology change management process for the ETS department.	PHASE III	Closed	CLOSED - pmo 3-15-2005	Baker Mary	Baker Mary	ETS
ETS05044 Support of Digital Learning Environment	The support of the digital learning environment includes a complete installation of an enterprise wireless network at each site. The one-to-one initiative includes the imaging, installation, and distribution of laptop computers for all students and teachers, in addition to on site installation and support of each site based server to support this ongoing project.	ETS			Coluzzi Angela	Coluzzi Angela	ETS

PMO – Project Descriptions

ETS05045 Broward Parentlink Project	The District acquired the Services of Parlant Technology's ParentLink. This solution gives schools and departments the ability to: 1.Automatically deliver truancy notification calls to student's homes. 2.Deliver phone and email messages about school functions and other non-emergency alerts. 3.Deliver phone and email messages concerning school or District emergency situations. This effort is being undertaken to assure policy and statute compliance; improve attendance and student achievement; improve school-home relations; and provide a tool for making emergency parent contacts.	ETS	Closed	CLOSED - pmo 6-2-2005	Coluzzi Angela		ETS
ETS05046 Education Technology Plan	Develop and submit compliance documentation of the District's Educational Technology Plan to the Florida Department of Education. State-approved compliance documentation is required for the district to remain eligible for state and federal technology funding. The previously approved compliance document will be updated to align with the National Education Technology Plan, SBBC's Strategic Planning, and the Information Technology Blueprint.	ETS			Baker Mary		ETS
ETS05047 Customer Relationship Management CRM Implementation	This project focuses on the implementation of a new Customer Relationship Management (CRM) solution. MySAP CRM is a set of methodologies and software with CTI technology and Internet customer self-service capabilities that will provide the ETS Service Desk with the foundation for a more efficient team.	ETS			Gieseking Linda		ETS
ETS05048 District Wireless Network Implementation	Enable BCPS Mobile users with Enterprise District Standard Wireless Network Equipment at all sites.	ETS			Coluzzi Angela	Coluzzi Angela	ETS
ETS05049 Student Technology Refresh	Procure, and implement an effective technology equipment replacement plan. Equipment reaching the end of its useful life will be replaced in all Elementary, Middle, High, and Centers. Site specific location of the equipment would be transparent to the replacement cycle thus creating a more equitable process. The existing standard/bid will govern what equipment is purchased as replacement.	Section IV.TLE5			Coluzzi Angela	Coluzzi Angela	ETS

PMO – Project Descriptions

ETS06001-0 Project Knexus, Workplace for Education Pilot	KNEXUS, defined as the merging of knowledge with technology, is the management access system that will unify BCPS's applications, information, and diverse databases through a single internet web page commonly known as a web portal. This "Workplace for Education" will provide BCPS administrators the ability to customize their gateway for the information that they need to support "No Child Left Behind" (NCLB) goals and requirements; access to information about their students; and access to information to improve their ability to manage their school. The Web portal content and applications will be tailored to specific job requirements in order to meet the diverse needs of all district personnel. The **Project Knexus Pilot** is a joint venture between BCPS and IBM. The pilot will leverage the *WebSphere Portal Extend V5.1* capabilities which were developed during the initial February 2005 proof-of-concept (PoC) to establish a limited scope "Workplace Pilot" solution. The pilot will include 30 targeted users, to include principals, and guidance counselors, that will test capabilities and provide input for future project phases. The primary goal of the "Workplace Pilot" project will be integrating 4 applications into portlets: Virtual Counselor, TERMS, Hyperion and Class Size Projections.	ETS			Schmaus Becky		ETS
FAC05001 Technical Infrastructure for School Facilities	The goal is to provide an educational, technical, design, and material district standard that is provided to all internal and external architects, and contractors who provide a service to design, construct, install, and maintain the district's technology and energy management infrastructure. The overall mission is to ensure technological equity and energy efficiency throughout the district. The tactical objective is to ensure an updating and funding process that will keep the standards in alignment with the educational learning strategies and equipment defined by the Division of Curriculum & Instruction/Student Support. The current Generic Educational Specifications, Technical Specifications, Design and Material Standards are in alignment with the current educational strategies. It should be noted that this is not a project with a specific end date milestone but rather an on-going "living" process that is in need of refresh every time curriculum or energy management strategies change.	Section IV.TLE4	Closed	CLOSED - pmo 5-19-2005	Coluzzi Angela	Getz Tom	Facilities

PMO – Project Descriptions

FAC05002 Technology Enhancement Upgrade and Refresh Plan	Initiate and fund an effective technology equipment refresh plan. Equipment reaching the end of its useful life is replaced or removed once identified. The existing technology standards govern what equipment is procured as replacement.	Section IV.TLE5	Closed	CLOSED - pmo 6-17-2005	Coluzzi Angela	Getz Tom	Facilities
FIN05001 HRMS Combine Use 6 and 0	In order to assist principals in identifying their bottom line budgets with respect to labor costs, combine the Use 6 and Use 0 labor reports into one report.	SP.FN1	Closed	CLOSED - pmo 5-25-2005	Moquin Denis	Turner Jane	Finance
FIN05002 SA IA Review	Bring current support and instructional allocation models up to modern times. Train principals that the new models are not mandatory but only a guide.	SP.FN10	Closed	CLOSED - pmo 5-26-2005	Moquin Denis	Turner Jane	Finance
FIN05003 Budget Communications	Revise the current process that requires an approval process prior to budget letters being sent to affected users.	SP.FN11	Closed	CLOSED - pmo 5-26-2005	Moquin Denis	Moquin Denis	Finance
FIN05004 Reduce Number of Required Signatures	Review the District's authorization forms and applicable School Board Policies with the intention of reducing the number of signatures required.	SP.FN2	Closed	CLOSED - pmo 5-24-2005	Moquin Denis	Robinson Henry	Finance
FIN05005 Change Budget Schedules Preparation	Change the schools' budget preparation meetings to occur in February and coincide with the scheduling process and boundary data.	SP.FN4	Closed	CLOSED - pmo 5-26-2005	Moquin Denis	Turner Jane	Finance
FIN05006 Year End Closing	Shorten the time it takes to close the fiscal year by condensing year end closing process and providing yearend reports earlier.	SP.FN9	Closed	CLOSED - pmo 5-17-2005	Moquin Denis	Grimm Melissa	Finance
FIN05007 Financial Reports	Review financial reporting for schools and make modifications where necessary to expedite and clarify reports.	SP.FN14			Moquin Denis	Turner Jane	Finance
HRS05001 Conversion to district Wide Bi Weekly Payroll	The School District will re-engineer the current payroll processes to convert it into a bi-weekly payroll cycle for all employees. This causes a reduction in the number of payrolls processed from seven to two. This reduces workloads for both End-users and the Payroll Department. Employees not on a 12 month calendar will be given the option to receive a paycheck during their non-working calendar months. This assists employees with budgeting their personal finances, if they so choose.	SP.HR5			Sonty Vijay	Suarez Marta	Human Resources

PMO – Project Descriptions

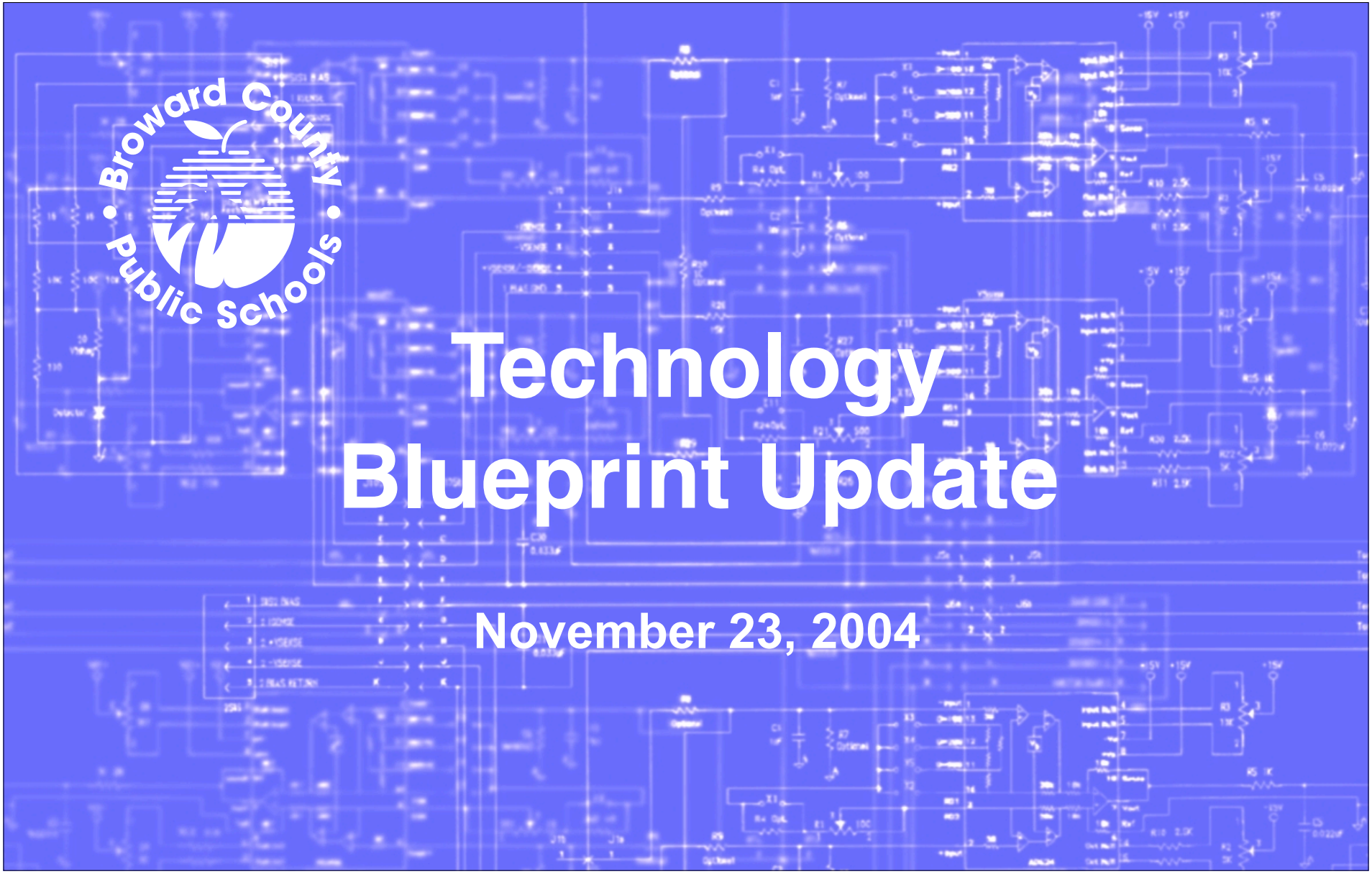
HRS05002 Staff Development Planning and Management System	In order to better meet the growing staff development needs and improve services to teachers and approximately 15,000 other employees, a comprehensive and centralized Staff Development Management System is needed. Additionally, the Florida Standards for Professional Development System Evaluation Protocol require web-based resources to be accessible by District staff. This system includes such features as: user-friendly interface, 24-hours / 7 days a week availability,, ability to display the District's Staff Development Calendar, registration for staff development activities via the Internet, management of Professional Growth Plans (PGP) and opportunities for on-line staff development. Implementation and support requires a System Coordinator and a Customer Service Specialist.	Section VI.SDT1			Diamond Daryl	Butler Leontine	Human Resources
HRS05003 Turn on Tracking	The SAP System has the capability to maintain an audit trail of activity on selected transactions. This allows for the creation, upon request, of all past changes to an Employee Record, including the nature of the change, when it was made, and who made the change. This tracking capability was initiated in the spring of 2004, and has not had any significant impact on systems performance to date.	SP.HR10	Closed	CLOSED - pmo 5-12-2005	Zielinski Paul	Suarez Marta	Human Resources
HRS05006 HRMS PAF	The Personnel Action Form business processes needs a major overhaul. The Human Resource Division has agreed to address this need as part of the ERP System implementation and the HR/Payroll System upgrade to Enterprise.	SP.HR2		Complete - waiting for closeout form.	Zielinski Paul	Suarez Marta	Human Resources
HRS05007 HRMS Leaves	The Leaves department was established as part of the 2004-2005 organization chart. It serves as a central focus point to provide employees direction on leave alternative options and to process and monitor formal leave requests.	SP.HR4	Closed	CLOSED - pmo 5-12-2005	Zielinski Paul	Cochran Dan	Human Resources
HRS05008 HRMS Retroactive Changes	The SAP System requires End-Users to establish a procedure to "set" a Control Record. This Control Record prevents retroactive adjustments from occurring in any preceding timeframe. The Finance Division has established a procedure to allow no more than one full year and the current year to be open to adjustments. The Control Record is "set" in the fall of each year by the SAP Support Center at the direction of the Director of Accounting.	SP.HR7		Complete - waiting for closeout form.	Zielinski Paul	Suarez Marta	Human Resources

PMO – Project Descriptions

HRS05009 HRMS ZA 71 Changes	The SAP System was successfully modified to allow Payroll Contacts at one location to "view-only" time entered for one of their employees at a different location. In addition, they now have the capability to make corrections to their time entries directly into the system without the need of involving third parties. The "tracking" allows an audit trail when, and if, necessary. A pilot was successfully conducted in October 2004 with a district-wide rollout occurring in November 2004.	SP.HR9	Closed	CLOSED - pmo 5-12-2005	Zielinski Paul	Suarez Marta	Human Resources
RAE05001 Online Assessment Tools	Procure (either develop or purchase) a Web-based, district-wide online assessment system utilizing valid and reliable test items that are aligned to district curriculum, state standards, and the statewide assessment (FCAT) and integrate the system with Curriculum Development and Implementation Management (CD/IM) System. Ensure that assessment results populate the diagnostic component of the AIP and are used to drive instruction.	Section II.CA4		CELT doing RFP	Stanley Jeff	Kraft Kimberly	
RAE05002 Student Information Systems Review	Interview Key stakeholders to gather issues with TERMS and requirements for a student information system. Identify the additional databases developed by schools to supplement TERMS and develop requirements for a student information system RFP.	Section X.ADDS4			Stanley Jeff	Eyerman Gina	
SIU06002 Security Tracking and Response System (STAR) "Fast Track" Implementation	Johnson Controls and SISCO are joining efforts to implement the "FAST TRACK" security system in all schools in the District. This security system is a Security Tracking and Response system (STAR) that is a high-speed, photo capturing, visitor, volunteer, mentor pass system designed to replace the manual visitor logbooks and generic visitor passes being used today by many schools. STAR is a security identification system that gives site administrators a tool to control visitors that enter their school. By capturing the visitor's photo, driver's license or identification information the system will perform an automated check against national sexual offender databases, the Broward County Clerk of Courts database and the capacity to add additional databases in the future. A photo ID will be issued if the visitor is cleared.	SIU			Stanley Chuck	Browne Reginald	

PMO – Project Descriptions

STP05001 Community Access and Engagement Plan	For the Community Access and Engagement Plan to succeed, employees and the public need to be informed about the program and how it will specifically benefit all stakeholders. The Communications Plan will include the use of many established communications vehicles to achieve this purpose, including but not limited to community meetings, the District Web site, the news media, Communicating Across Broward (CAB), posters, flyers and perhaps newsletters, as appropriate. The Community Engagement piece will include, but is not limited to, soliciting the active involvement in the project from various community groups, businesses and the religious community.	Section XII.CAP1			Baker Mary	Bromery Keith	Strategic Planning
STP05002 District Level Planning	Develop, and implement a method for aligning and coordinating all major district plans (strategic plan, technology plan) including those recommended in this Information Technology Blueprint. Use the Sterling Plan, Do, Study, Act (PDSA) continuous improvement model as a backbone for all district-planning activities.	Section IX.DSSP 1			Schmaus Becky	Terrel Nancy	Strategic Planning
STP05004 Distance Learning	Continue development of distance learning to enhance both work and learning environments. Conduct a total cost assessment that includes ancillary costs and benefits. Develop policies that help to move conferencing and distance learning more deeply into daily practices.	Section IV.TLE2			Baker Mary	Baker Mary	Strategic Planning
STP05005 Virtual Advanced Community Learning Centers	Expand concept for the development and implementation of Virtual Advanced Community Learning that will provide Broward County with online courses, training programs, independent/community study opportunities and staff development programs. Include integration with adult education programs.	Section IV.TLE3			Baker Mary	SchifferSimon Phyllis	Strategic Planning



Technology Blueprint Update

November 23, 2004

Our Mission and Goals



"Effectively utilize technology in the teaching and learning process for student achievement."

Our Mission and Goals

Goal 1



All students will achieve at their highest potential.

Effectively utilize technology in the teaching and learning process for student achievement.

Our Mission and Goals

Goal 2



All schools will have equitable resources.

All students will achieve at their highest potential.

Effectively utilize technology in the teaching and learning process for student achievement.

Our Mission and Goals

Goal 3



All operations of the school system will demonstrate best practices while supporting student achievement.

All schools will have equitable resources.

All students will achieve at their highest potential.

Effectively utilize technology in the teaching and learning process for student achievement.

Our Mission and Goals

Goal 4



All stakeholders work together to build a better school system.

All operations of the school system will demonstrate best practices while supporting student achievement.

All schools will have equitable resources.

All students will achieve at their highest potential.

Effectively utilize technology in the teaching and learning process for student achievement.

Our Mission and Goals



All stakeholders work together to build a better school system.

All operations of the school system will demonstrate best practices while supporting student achievement.

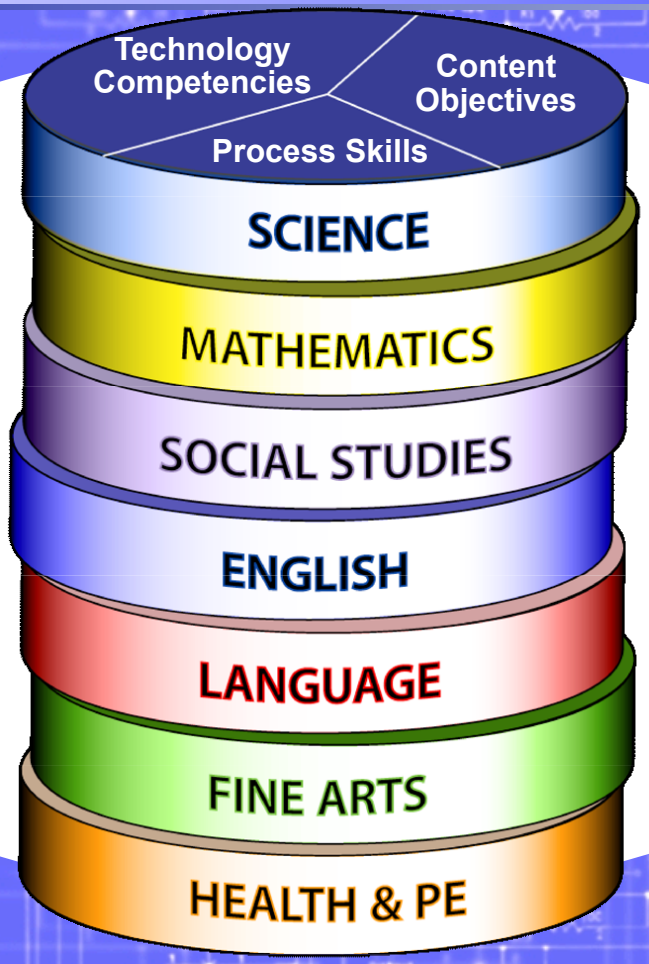
All schools will have equitable resources.

All students will achieve at their highest potential.

Effectively utilize technology in the teaching and learning process for student achievement.

21st Century Learning

Academic Learning Standards/ Frameworks and Assessment Strategies



= Engaged Learning:

- Thematic
- Project-Based
- Exploratory

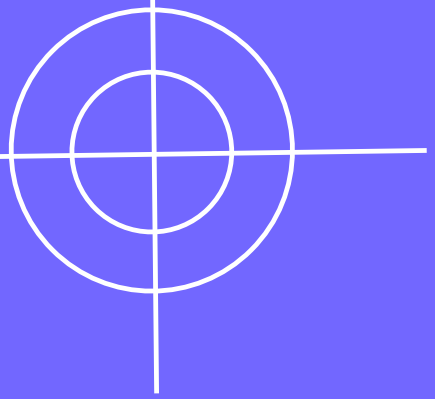
BCPS Technology Assessment

Applications

- Core Processes
- Application Gaps & Overlaps
- Application Integration & Architecture

Governance

- Budget & Allocation Method
- Investment Prioritization
- Management Processes



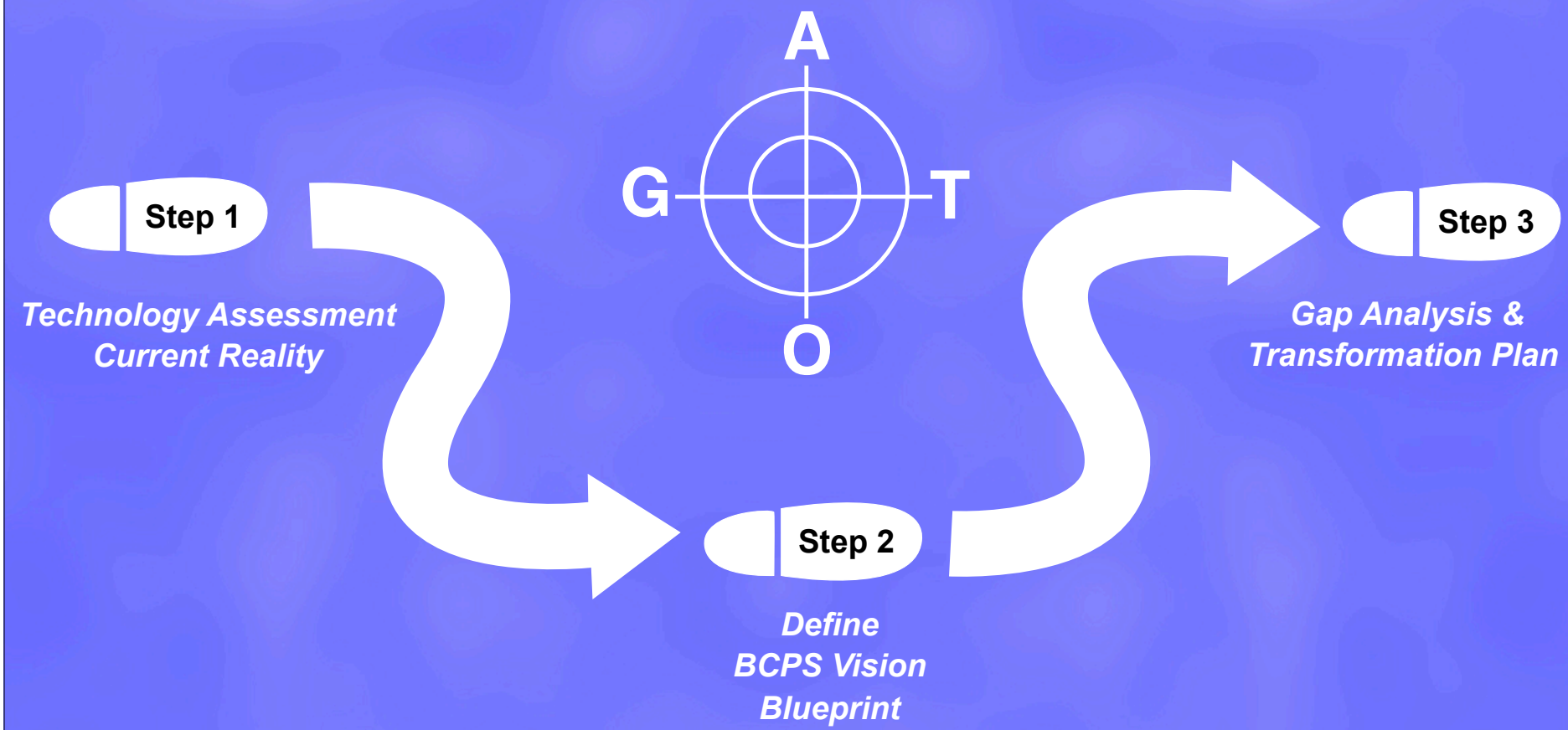
Technology

- Development, Test & Production Environment
- Customer Support Services
- Platforms, Networks, Tools, Standards

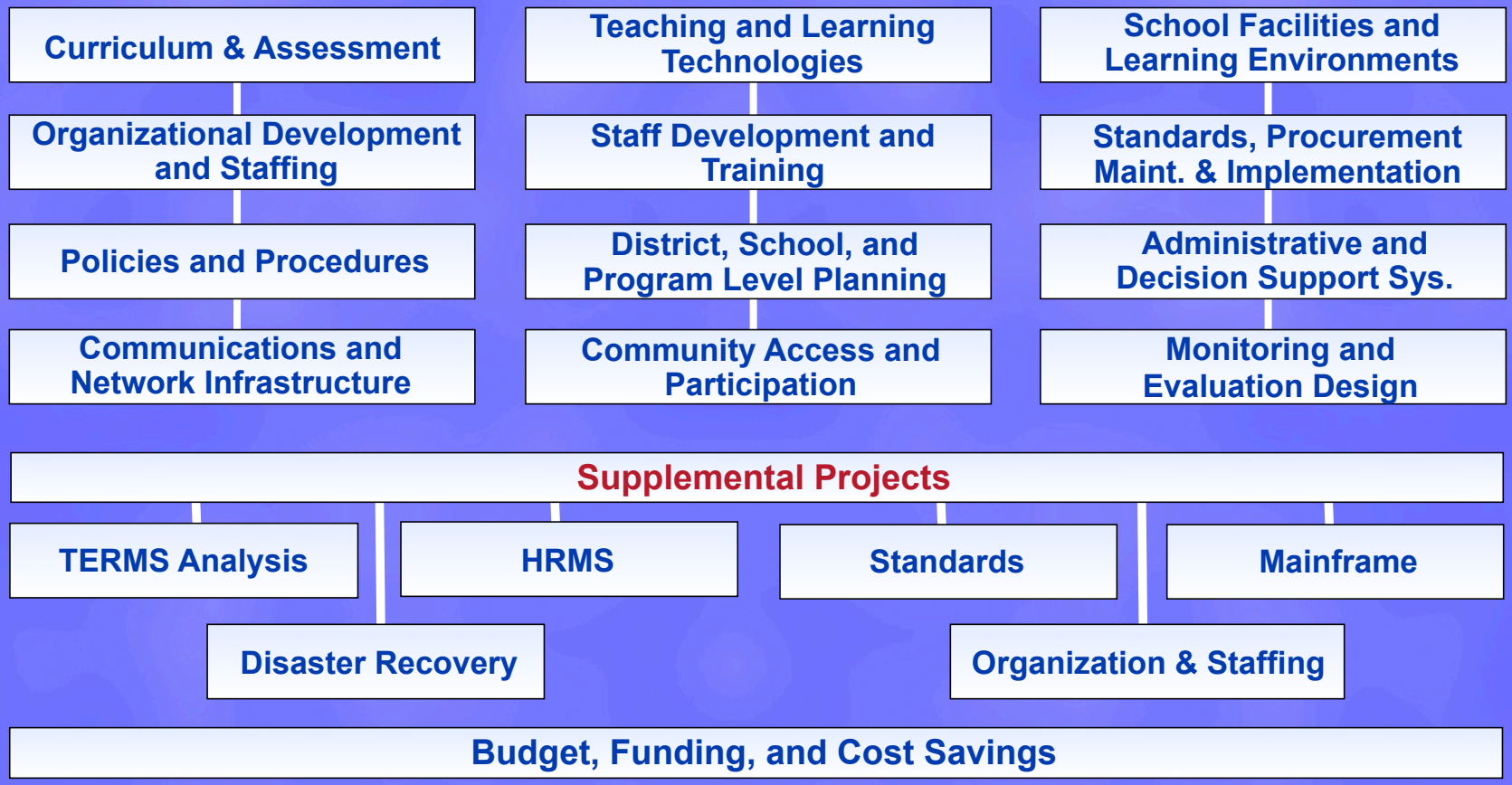
Organization

- Structure, Staffing, Roles/Responsibilities
- Resource Allocation/Utilization
- Current HR Processes

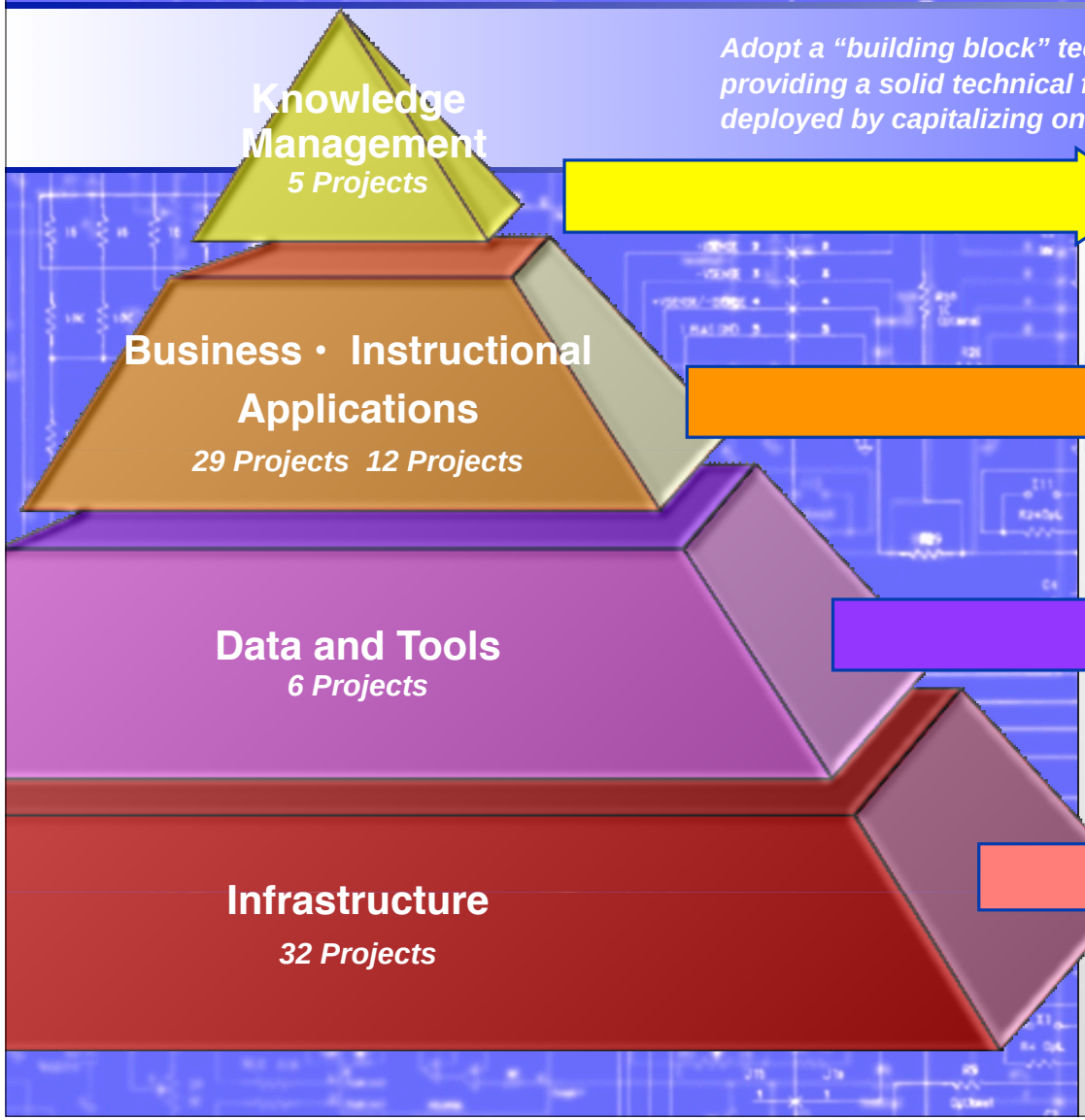
Technology Direction



Review Process



Adopt a "building block" technology architecture to support BCPS objectives by providing a solid technical foundation upon which advanced applications will be deployed by capitalizing on people, process and technology resources.



Blueprint Overview

- Portals
- Reporting

- CD/IM
- Student Information System
- Enterprise Resource Planning

- Data Warehouse
- Middleware

- Wide Area Network
- Physical Hardware
- Distributed Computing

Organizational Summary

Key Changes:

- *Significantly Increase Customer Focus*
  - Formal Customer Liaisons
- *Increase Service and Support Levels across the District*
- *Establish Technology Governance*
  - Senior Management
  - TAC
  - Standards Committee
- *Establish Technology Process Owners*
  - Systems Development
  - Information Security
  - Project Management
  - Service Level Management

Organizational Summary

To meet the vision, new IT skill sets are required...

Organization

New ETS positions

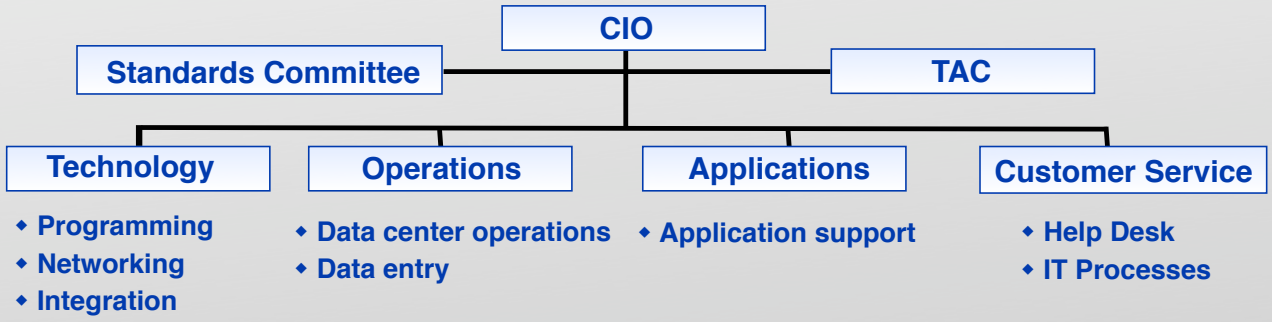
- Manager, Information Security
- Manager, Projects
- Manager, Conferencing Services
- Manager, Instructional Technology

Previously approved ETS positions

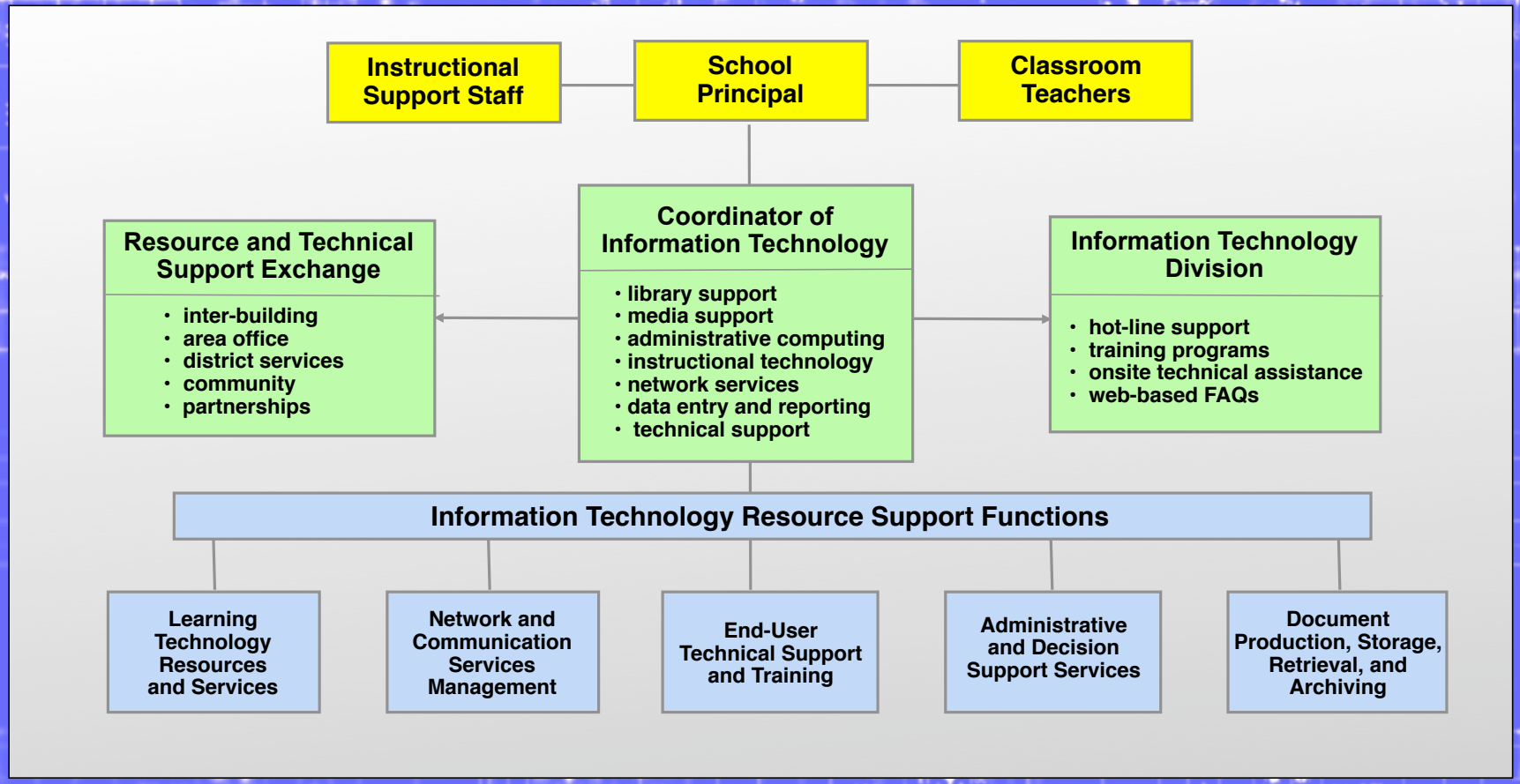
- Director of Business and Decision Support
- Director Quality and Customer Service

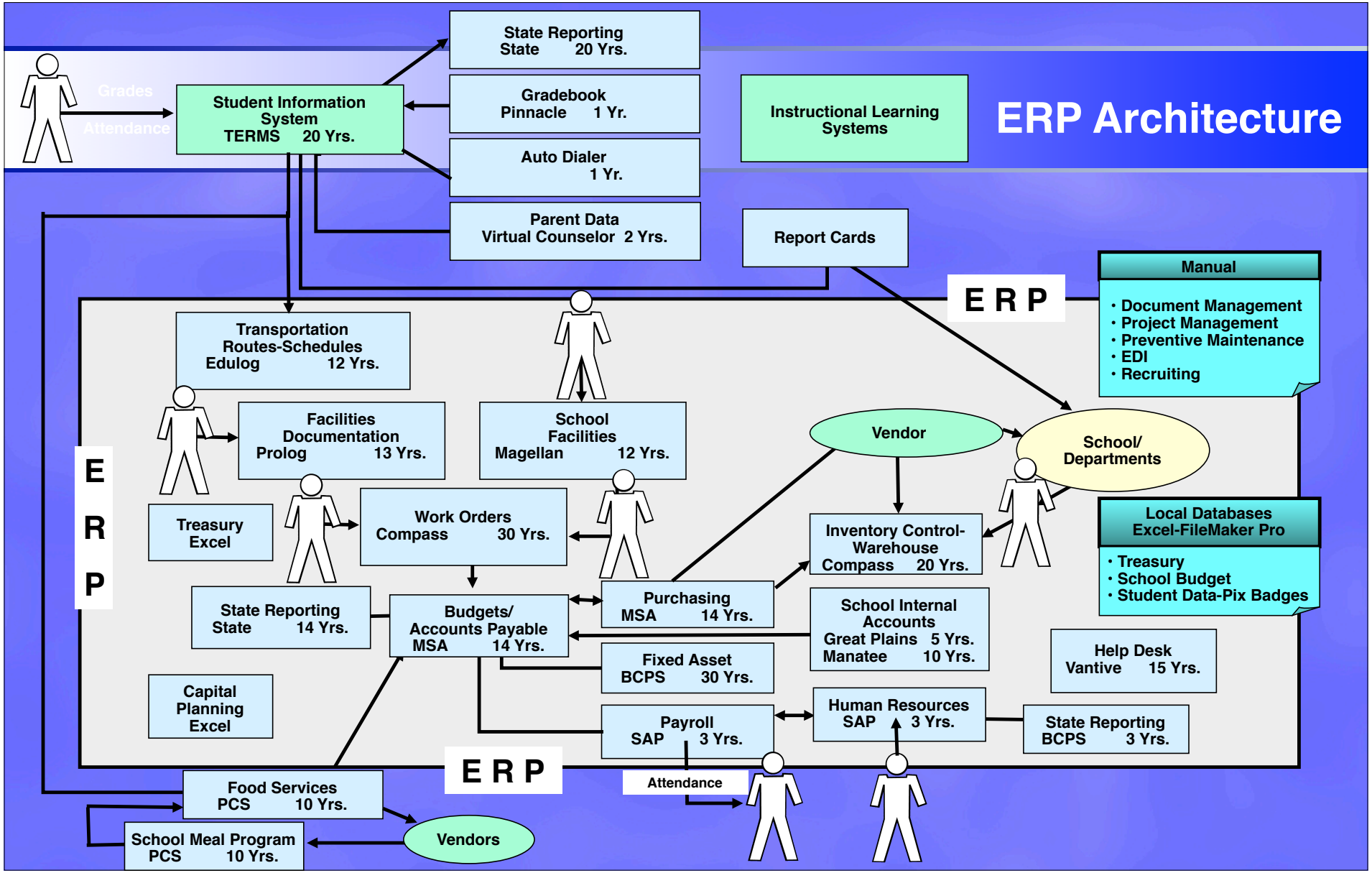
Organizational Plans:

Most entities are organizing along these initial four areas...

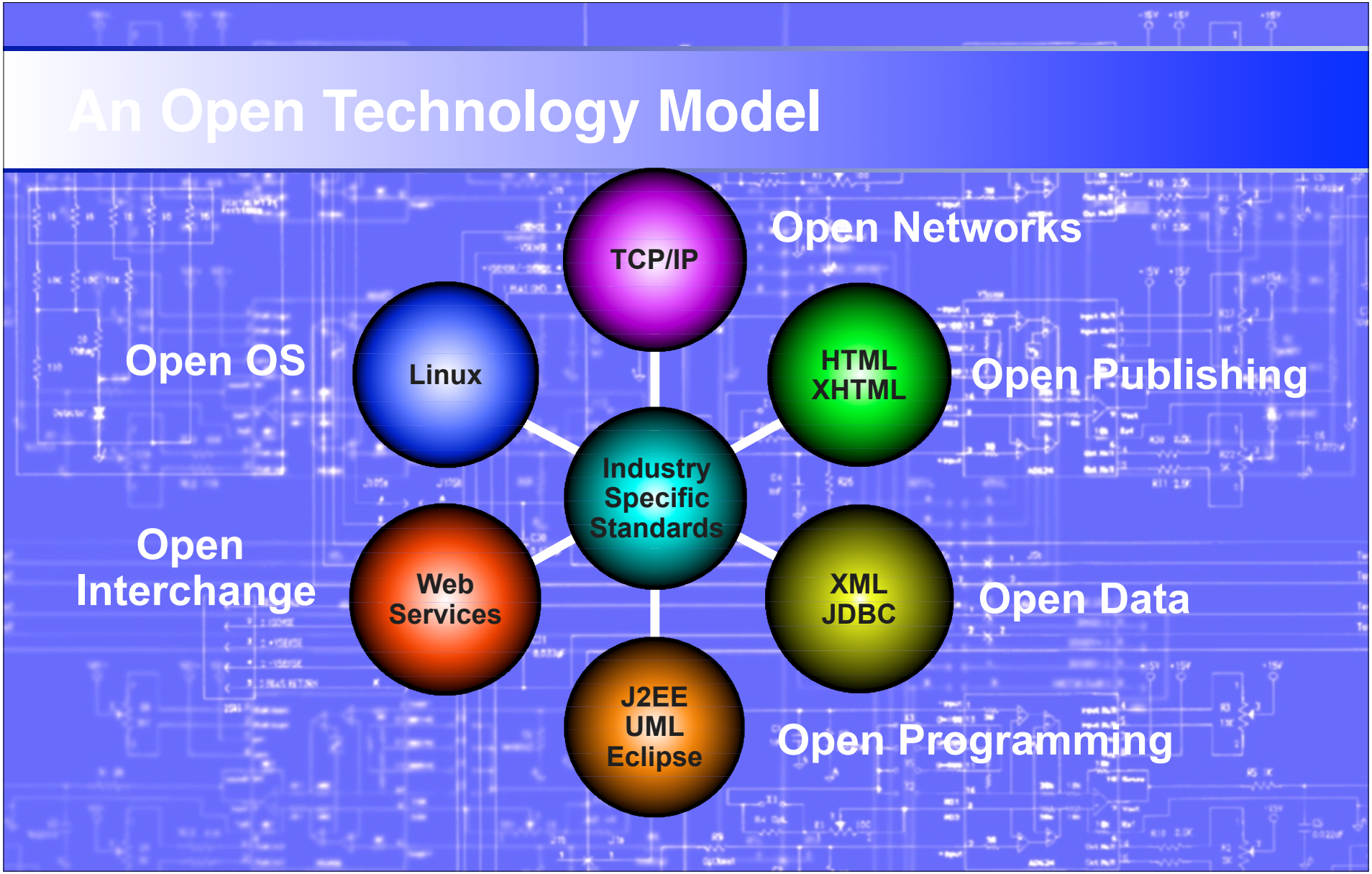


School-Level Organization Services

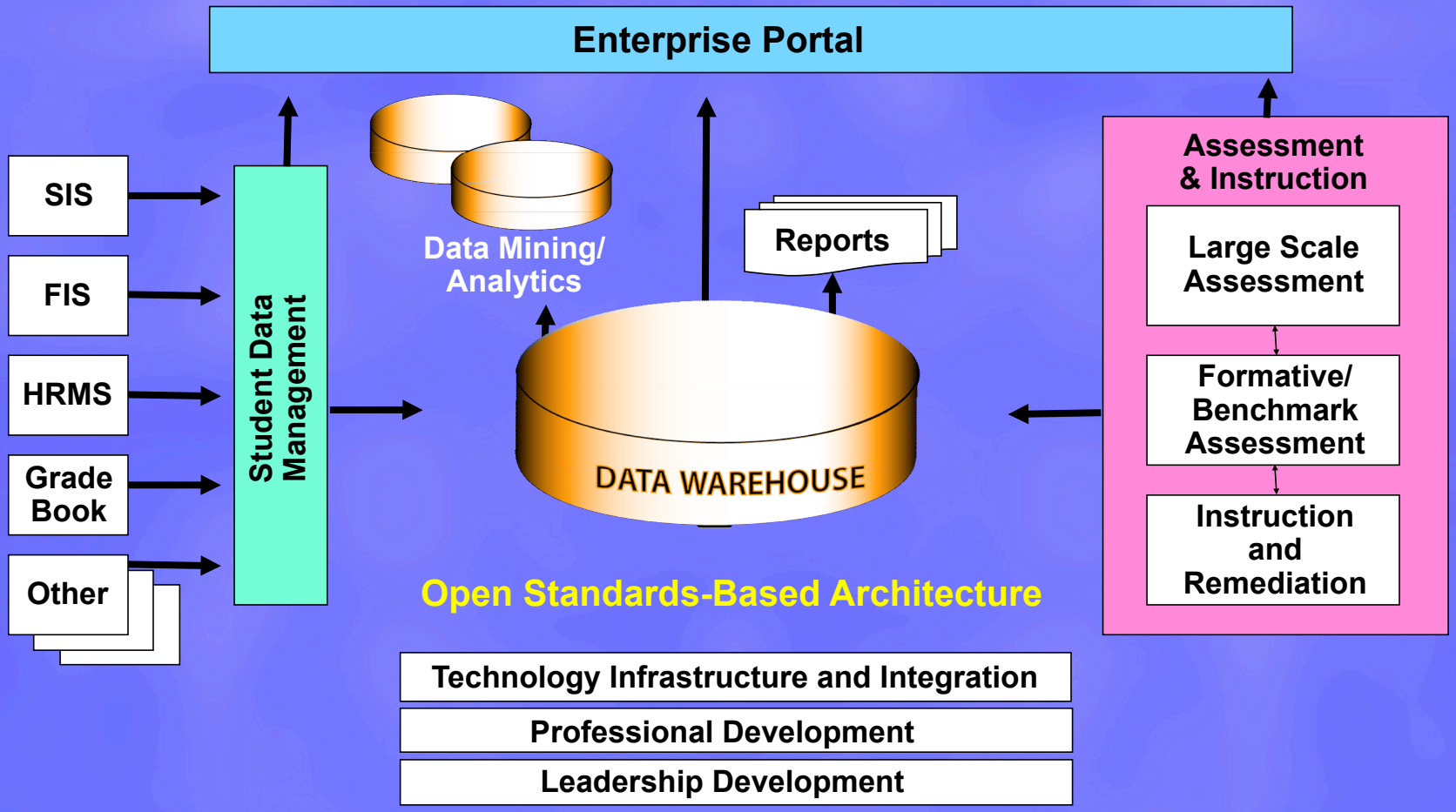



ERP Architecture
Grades
Attendance
Student Information System
TERMS 20 Yrs.
State Reporting
State 20 Yrs.
Gradebook
Pinnacle 1 Yr.
Auto Dialer
1 Yr.
Parent Data
Virtual Counselor 2 Yrs.
Instructional Learning Systems
Report Cards
E R P
Manual
• Document Management
• Project Management
• Preventive Maintenance
• EDI
• Recruiting
Transportation
Routes-Schedules
Edulog 12 Yrs.
Facilities
Documentation
Prolog 13 Yrs.
School
Facilities
Magellan 12 Yrs.
Vendor
School/
Departments
E
R
P
Treasury
Excel
Work Orders
Compass 30 Yrs.
Inventory Control-
Warehouse
Compass 20 Yrs.
Local Databases
Excel-FileMaker Pro
• Treasury
• School Budget
• Student Data-Pix Badges
State Reporting
State 14 Yrs.
Budgets/
Accounts Payable
MSA 14 Yrs.
Purchasing
MSA 14 Yrs.
School Internal
Accounts
Great Plains 5 Yrs.
Manatee 10 Yrs.
Fixed Asset
BCPS 30 Yrs.
Help Desk
Vantive 15 Yrs.
Capital
Planning
Excel
Payroll
SAP 3 Yrs.
Human Resources
SAP 3 Yrs.
State Reporting
BCPS 3 Yrs.
E R P
Attendance
Food Services
PCS 10 Yrs.
School Meal Program
PCS 10 Yrs.
Vendors

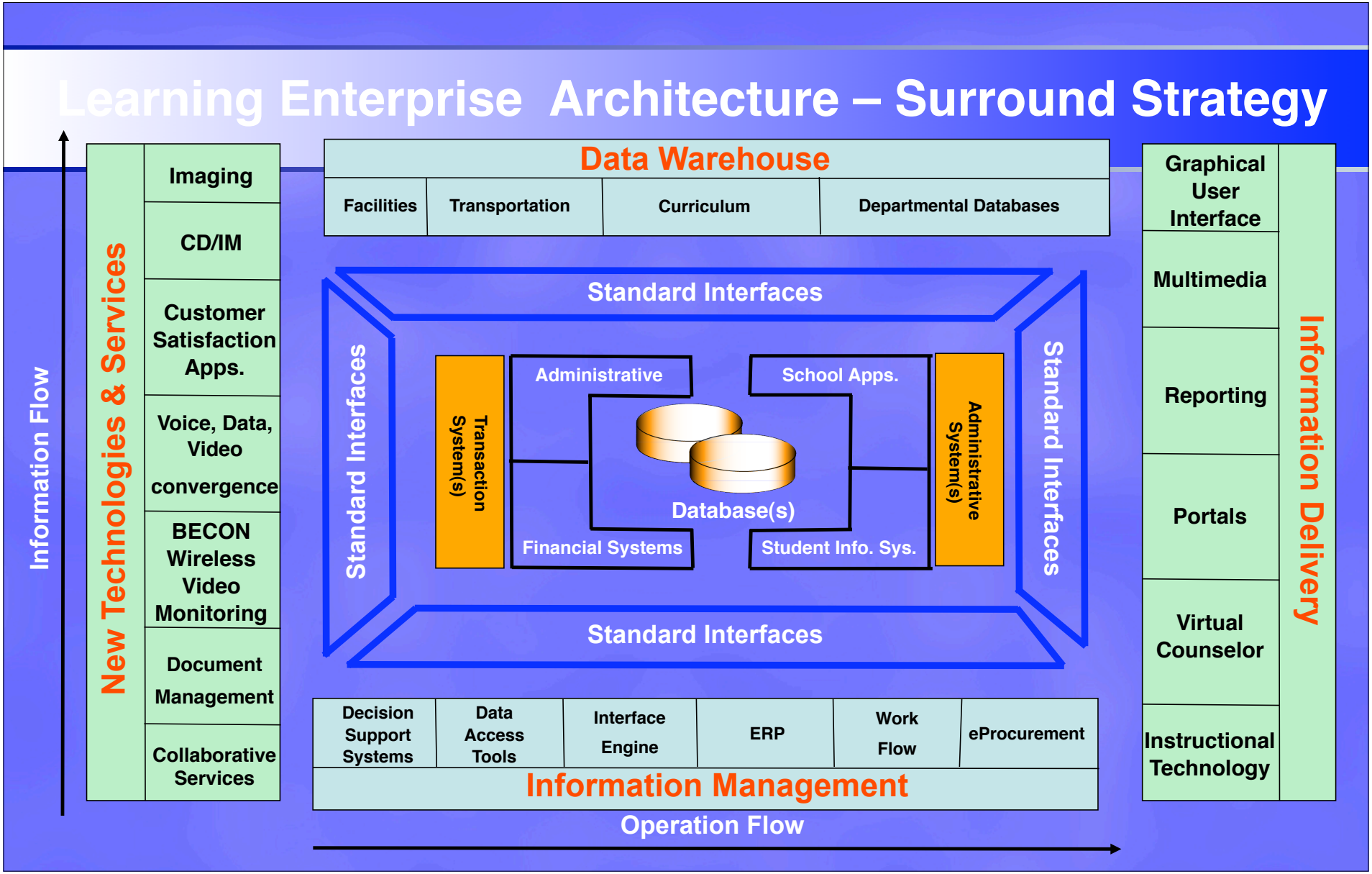
An Open Technology Model



Key Components of Educational Technology

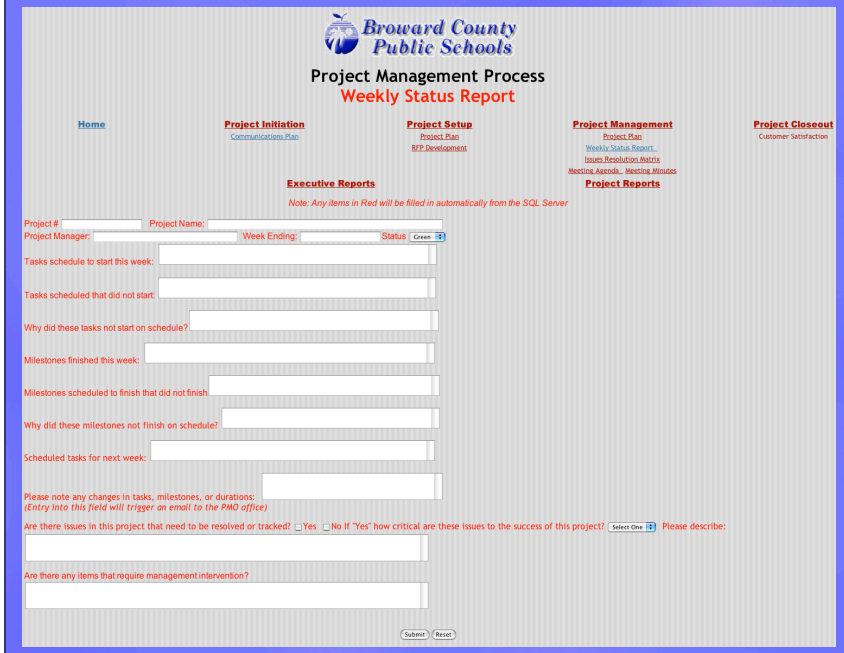


Learning Enterprise Architecture – Surround Strategy



Project Management Office (PMO)

Input & Data Exchange



Broward County Public Schools

Project Management Process
Weekly Status Report

Home | Project Initiation (Communications Plan) | Project Setup (Project Plan, RFP Development) | Project Management (Project Plan, Weekly Status Report, Issues Resolution Matrix, Meeting Agenda, Meeting Minutes) | Project Closeout (Customer Satisfaction)

Executive Reports | Project Reports

Note: Any items in Red will be filled in automatically from the SQL Server

Project # | Project Name:
Project Manager: | Week Ending: | Status: Green

Tasks schedule to start this week:

Tasks scheduled that did not start:

Why did these tasks not start on schedule?

Milestones finished this week:

Milestones scheduled to finish that did not finish

Why did these milestones not finish on schedule?

Scheduled tasks for next week:

Please note any changes in tasks, milestones, or durations:
(Entry into this field will trigger an email to the PMO office)

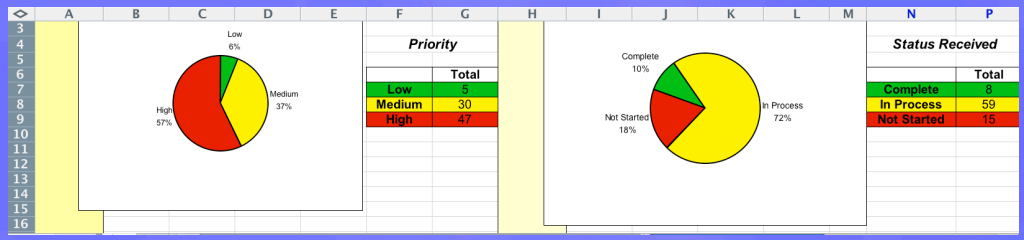
Are there issues in this project that need to be resolved or tracked? ☐ Yes ☐ No If 'Yes' how critical are these issues to the success of this project? Select One Please describe:

Are there any items that require management intervention?

Submit | Reset

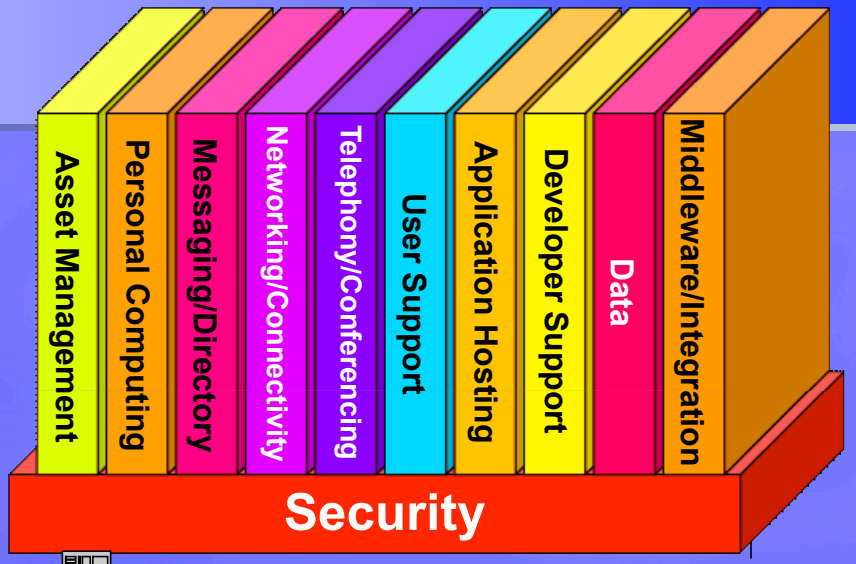
Executive Reporting

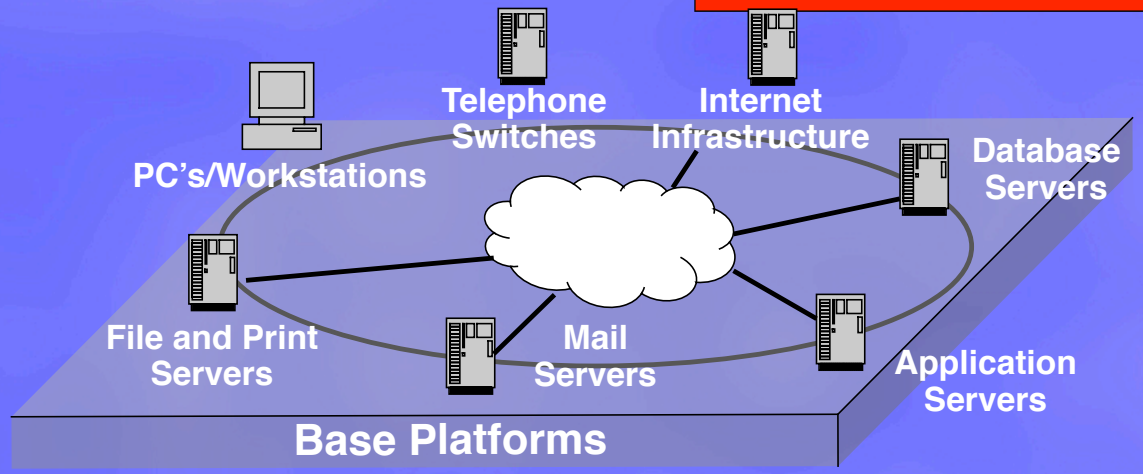
	C	E	G	H	I	J	L	N	P	R
	BCPS Project Number	Project Name (Setup)	Priority	Color Priority	Duration	Senior Manager	Business Project Manager	ETS Project Manager-Last Name	1st Quarter Status Rc'vd	1st Quarter Status
	Sort / Sort	Sort / Sort	Sort / Sort		Sort / Sort	Sort / Sort	Sort / Sort	Sort / Sort	Sort / Sort	
1	Filter ->	Filter ->	Filter ->	Filter ->	Filter ->	Filter ->	Filter ->	Filter ->	Filter ->	Filter ->
3	ARS05002	AS/400 Consolidation	Medium	Yellow	Medium	Area Supts.	Smith	Moquin	C	Green
4	ARS05003	Budget Communications	Medium	Yellow	Long	Area Supts.	Colton	Moquin	N	Red
5	ARS05004	Business Event Lockout	High	Red	Short	Area Supts.	Remy	Zielinski	I	Yellow
6	ARS05005	Catalog Equity Objectives	High	Red	Short	Area Supts.	Laverde	Zielinski	I	Yellow
7	ARS05006	Catalog Technology & Information Processes/Procedures	High	Red	Short	Area Supts.	Cupo	Zielinski	I	Yellow
8	COS05001	Central Software Distribution	Medium	Yellow	Long	Jim Notter	Terrel	Monaghan	I	Yellow
9	COS05002	Change Budget Schedules (Preparation)	High	Red	Long	Jim Notter	Martin-Ogburn	Monaghan	I	Yellow
10	COS05003	Change Management	Medium	Yellow	Long	Jim Notter	Mandley	Moquin	I	Yellow
11	COS05004	Check Sequencing	Medium	Yellow	Long	Jim Notter	Schiffer-Simo	Monaghan	N	Red
12	CUR05001	Combine Use 6/0	High	Red	Long	Dr. Earlean Smiley	Gendron	TBA	I	Yellow
13	CUR05002	Communication Continuity Plan	High	Red	Long	Dr. Earlean Smiley	Gendron/Edwards	TBA	I	Yellow
14	CUR05003	Community Access and Engagement Plan	High	Red	Long	Dr. Earlean Smiley	Vodolo/Carr	TBA	I	Yellow
15	CUR05004	Compass Learning 73 School Upgrade	Medium	Yellow	Long	Dr. Earlean Smiley	Gendron	TBA	I	Yellow
16	CUR05005	Comprehensive Approach for Building a CD/IM System	High	Red	Long	Dr. Earlean Smiley	Gendron/Barba	TBA	I	Yellow
17	CUR05006	County-wide Summit on Technology, Learning, and Economic Development	High	Red	Long	Dr. Earlean Smiley	Gendron	TBA	I	Yellow
18	CUR05007	Curriculum/Technology Integration Approaches	High	Red	Long	Dr. Earlean Smiley	Kelly	TBA	I	Yellow
19	CUR05008	Data Center Printers	High	Red	Long	Dr. Earlean Smiley	Correll	TBA	I	Yellow
	CUR05009	Data Warehouse Access	Low	Green	Medium	Dr. Earlean Smiley	Miracola	TBA	I	Yellow



Enterprise Security

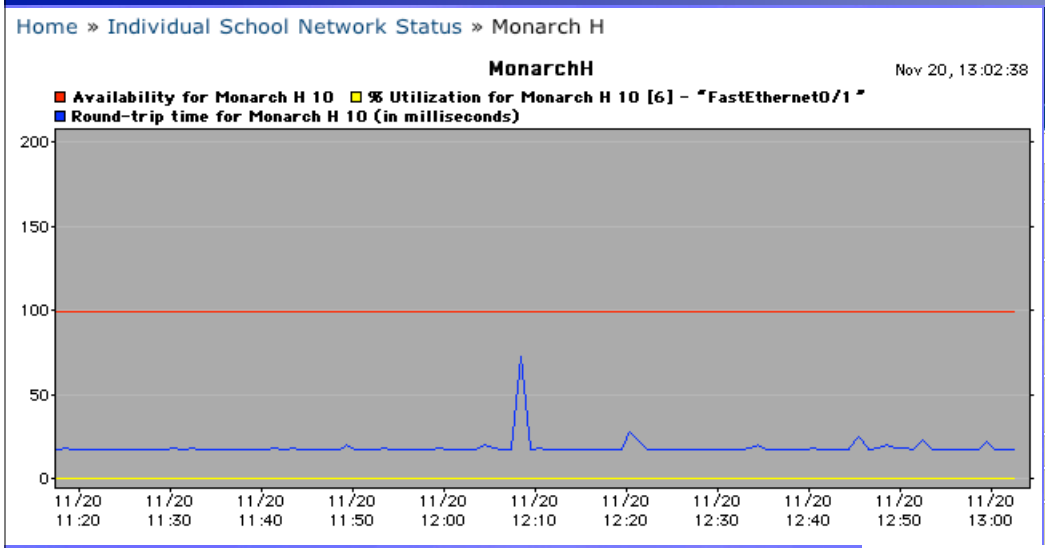
Common infrastructure services….

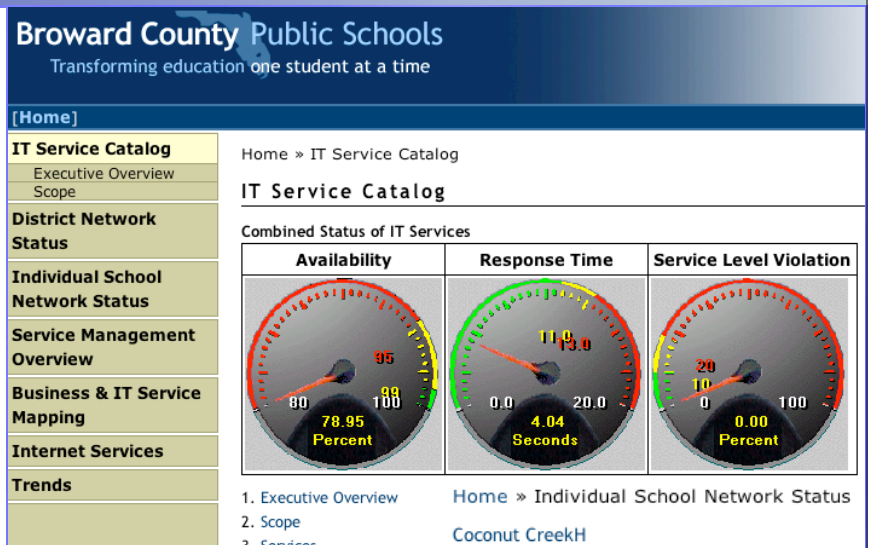


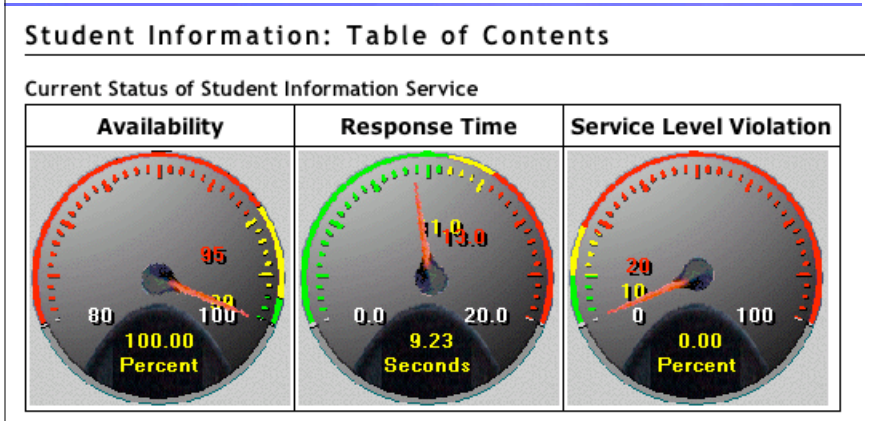


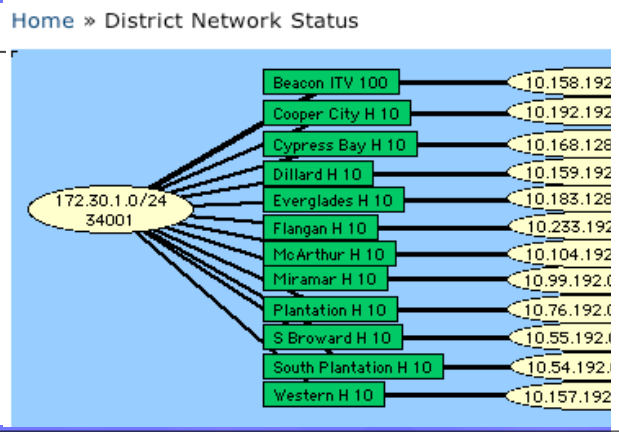
….residing on a shared computing and network platform

Network Operations Center (NOC)



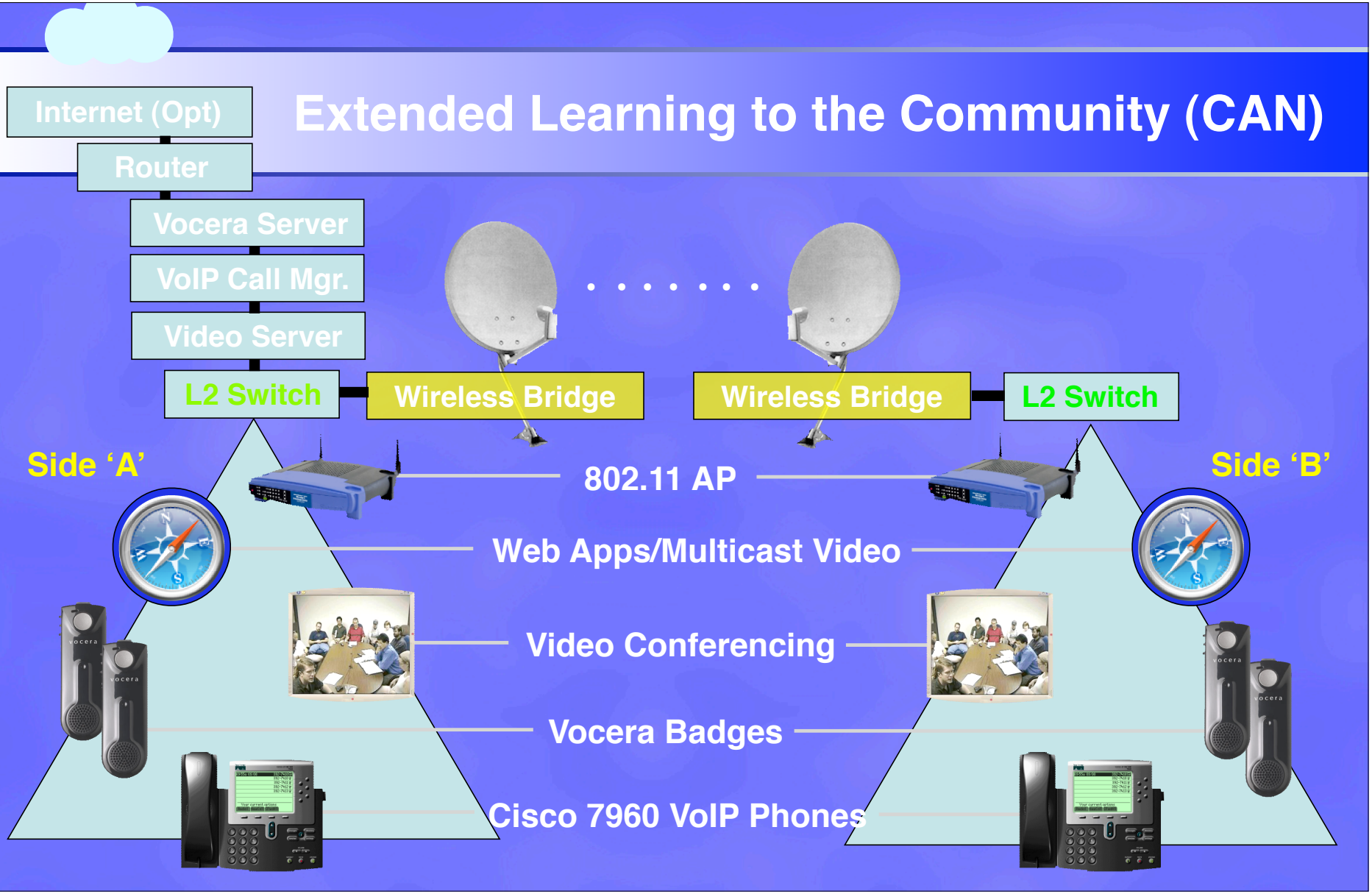








Extended Learning to the Community (CAN)

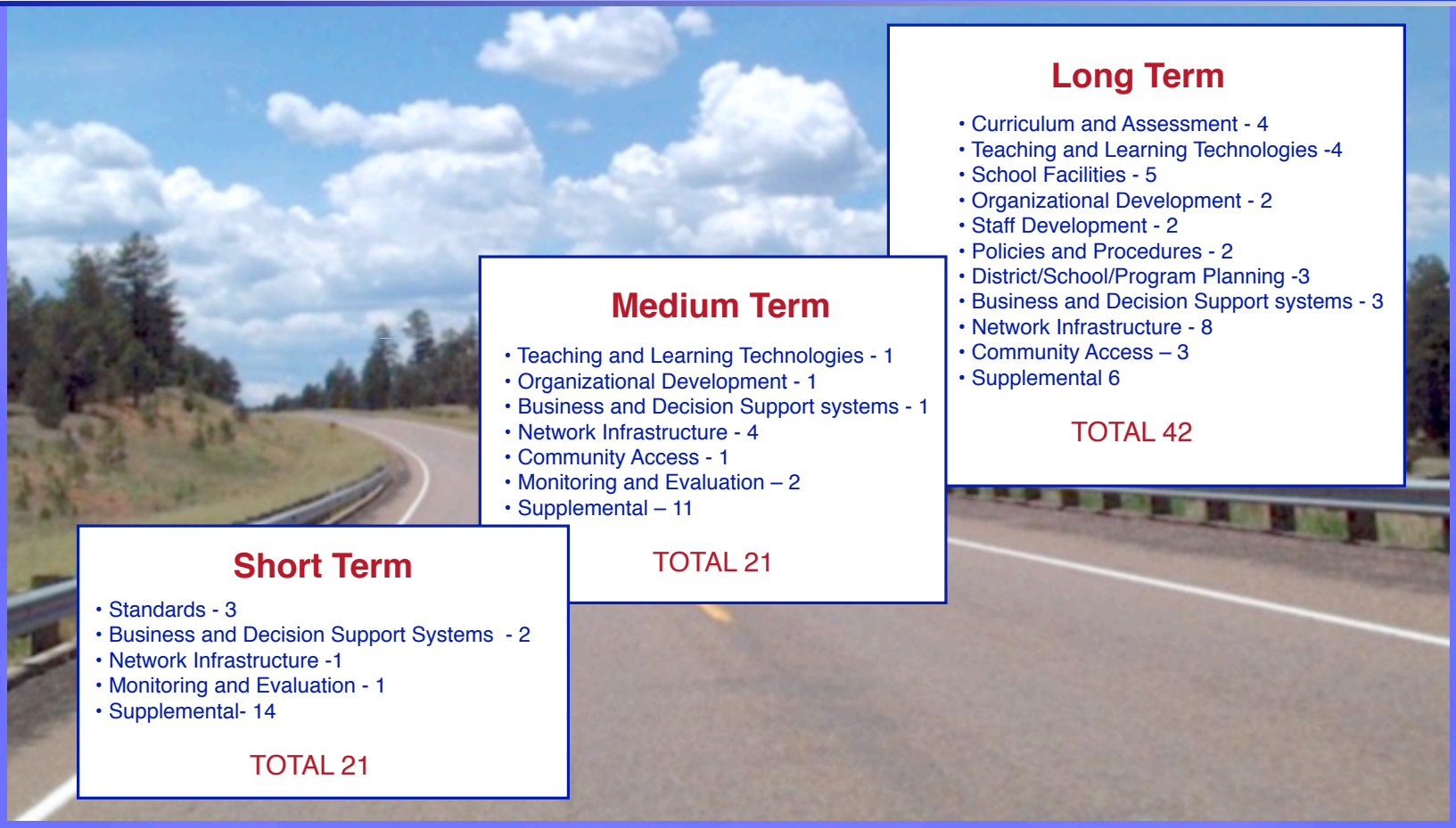


Bridging the Digital Divide

- Program Vision
- Proposed Pilot
- Parent Connection
- Goals & Objectives
- Program Framework
- School Board Policy



Roadmap



Long Term

- Curriculum and Assessment - 4
- Teaching and Learning Technologies -4
- School Facilities - 5
- Organizational Development - 2
- Staff Development - 2
- Policies and Procedures - 2
- District/School/Program Planning -3
- Business and Decision Support systems - 3
- Network Infrastructure - 8
- Community Access – 3
- Supplemental 6

TOTAL 42

Medium Term

- Teaching and Learning Technologies - 1
- Organizational Development - 1
- Business and Decision Support systems - 1
- Network Infrastructure - 4
- Community Access - 1
- Monitoring and Evaluation – 2
- Supplemental – 11

TOTAL 21

Short Term

- Standards - 3
- Business and Decision Support Systems - 2
- Network Infrastructure -1
- Monitoring and Evaluation - 1
- Supplemental- 14

TOTAL 21

Blueprint Action Plan Matrix

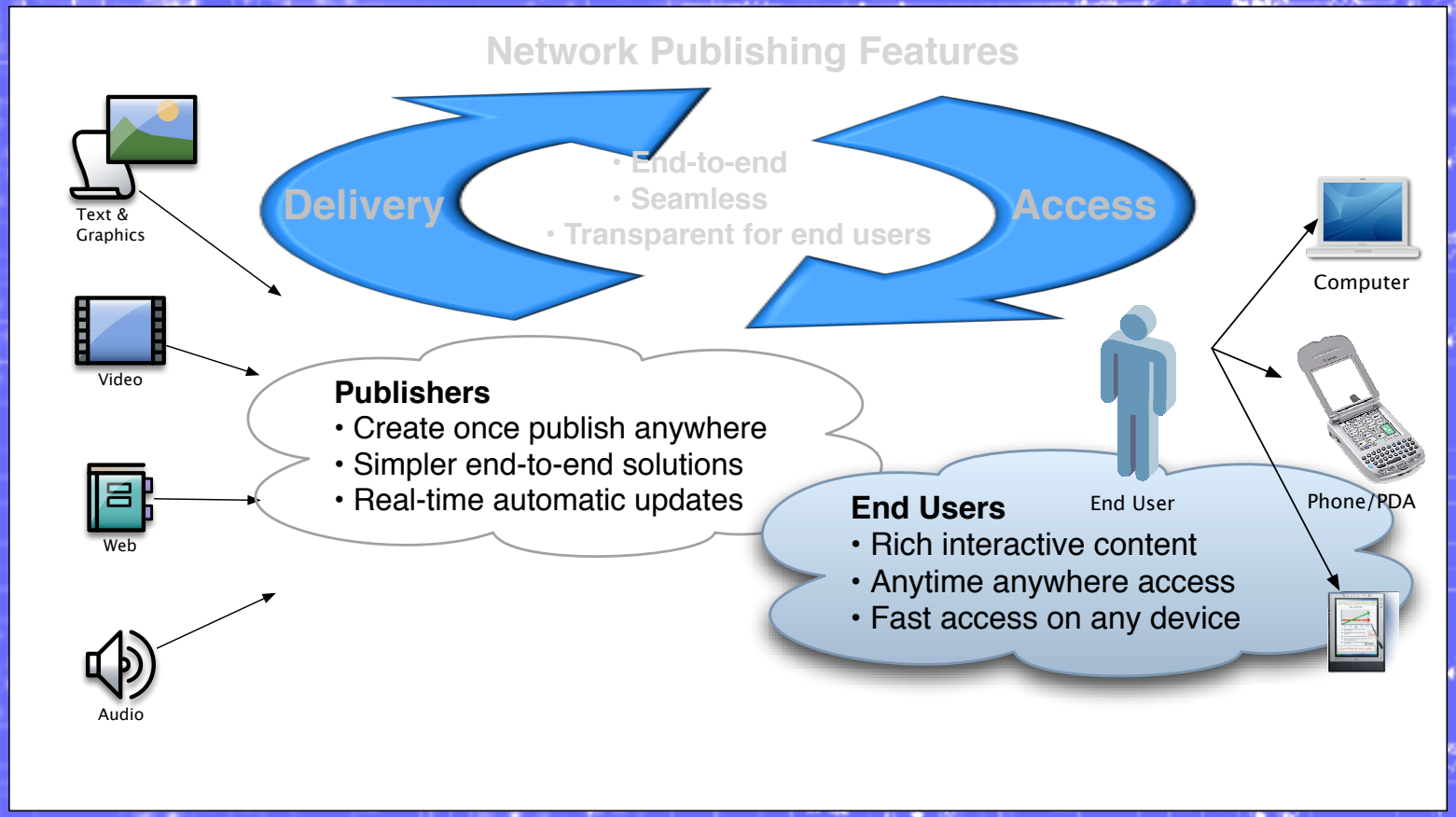
82 projects
7 completed
61 in process
14 not started

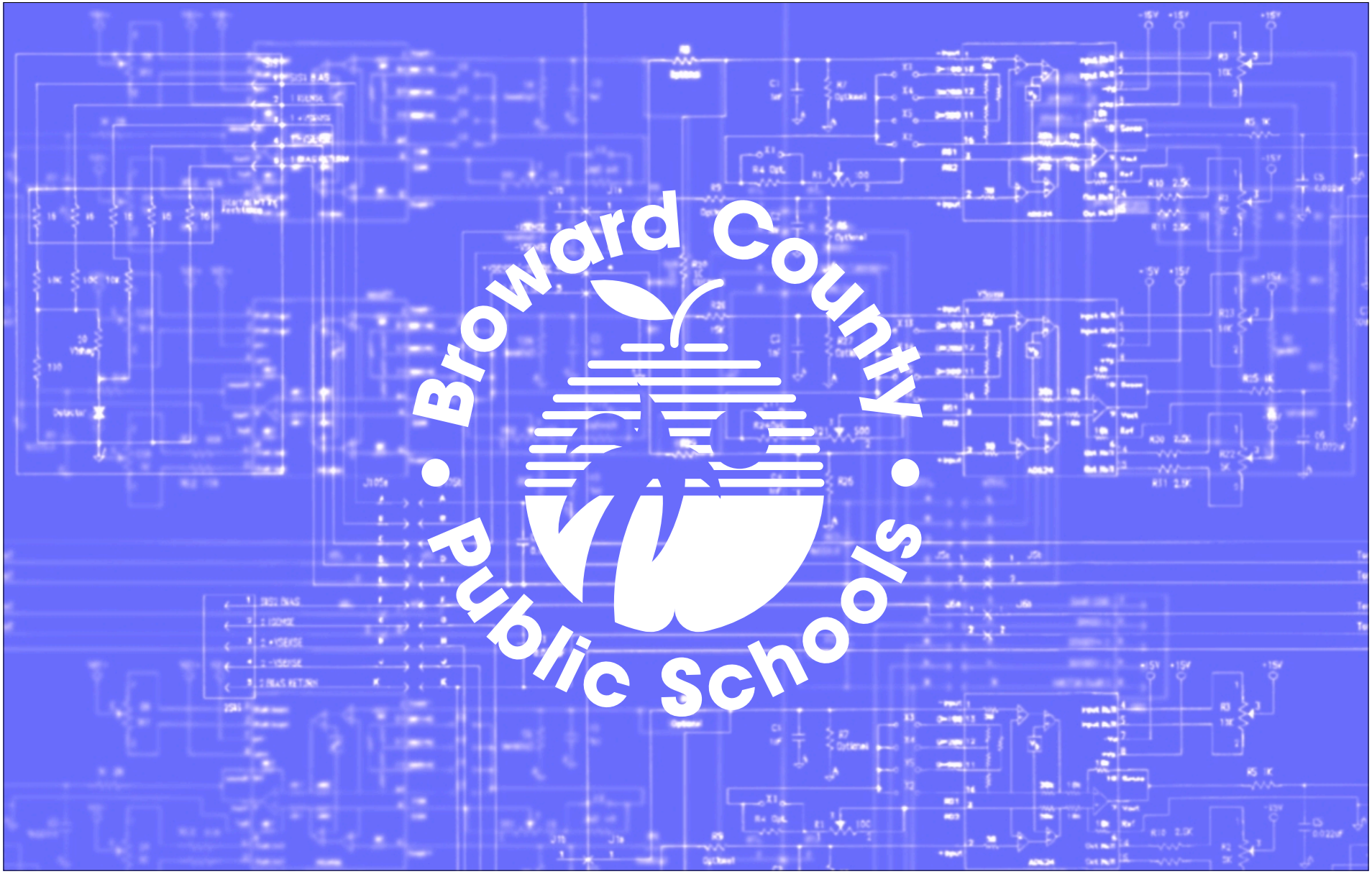
DURATION

PRIORITY

PRIORITY	Short 6 Months	Medium 6-12 Months	Long Over 12 Months
High	**16** Completed 4 In Process 12 Not Started 0	**11** Completed 1 In Process 9 Not Started 1	**20** Completed 0 In Process 16 Not Started 4
Medium	**1** Completed 0 In Process 1 Not Started 0	**11** Completed 1 In Process 8 Not Started 2	**18** Completed 0 In Process 13 Not Started 5
Low	**1** Completed 1 In Process 0 Not Started 0	**2** Completed 0 In Process 2 Not Started 0	**2** Completed 0 In Process 0 Not Started 2

Model for Electronic Textbook Publishing




Broward County
Public Schools

Broward Education Technology in Schools (BETS)

Technology Blueprint Status Report

June 28, 2005






Review Process – Blueprint Sections

- Curriculum & Assessment
- Organizational Development and Staffing
- Policies and Procedures
- Communications and Network Infrastructure
- Teaching and Learning Technologies
- Staff Development and Training
- District, School, and Program Level Planning
- Community Access and Participation
- School Facilities and Learning Environments
- Standards, Procurement Maint. & Implementation
- Administrative and Decision Support Sys.
- Monitoring and Evaluation Design

Supplemental Projects

- TERMS Analysis
- HRMS
- Standards
- Mainframe
- Disaster Recovery
- Organization & Staffing

Budget, Funding, and Cost Savings

Blueprint Overview – Project Owners

Sponsors	Blueprint Projects	Supplemental Projects	Total Projects
Area Superintendents	1	5	6
Dr. K. Blasik	2		2
D. Cochran	1	6	7
M. Garretson	2		2
B. Leong		7	7
J. Notter	3	1	4
V. Sonty	26	13	39
Dr. E. Smiley	9		9
Dr. N. Terrel	4		4
TOTAL	48	32	80

Blueprint Overview – Action Plan Matrix

	Short < 6 Mos.	Medium 6–12 Mos.	Long >12 Mos.	
High Priority	16 14 - Completed	12 4 - Completed	19 1 - Completed	47 (19)
Medium Priority	6 3 - Completed	7 2 - Completed	16 3 - Completed	29 (8)
Low Priority	0	2 1 - Completed	2	4 (1)

DURATION

Total = 80 Projects (28 Completed)

ETS Blueprint Projects

Transition Projects Status Update

COMPLETED 4/15/05 ($285,000)

ETS05040

ETS TRANSITION

BLUEPRINT PROJECTS

Transition Project Management

Benefits:

- Provide a project plan for all of the projects listed in the BCPS Technology Matrix.

(See file attachment – BCPS Technology Matrix.pdf)

- Provide assistance to all stakeholders, assigned owners and leaders for the blueprint projects.

COMPLETED 3/15/05 ($122,500)

ETS05023

ETS TRANSITION

BLUEPRINT PROJECTS

Establish a Project Management Office (PMO)

Benefits:

- Improved delivery of projects
- Project Managers can be proactive rather than reactive when managing projects
- Improved communication for all stakeholders on project status
- PMO is now part of ETS operations.



ETS05042
ETS05008

ETS TRANSITION

BLUEPRINT PROJECTS

Change Management

COMPLETED 3/15/05 [$30,000]

Benefit: Minimize unplanned down time.

RFP Development and Funding Options

COMPLETED 4/27/05 [$60,000]

Benefit: Detailed resource for seeking alternative funding options.

COMPLETED 2/15/05 ($55,000)

ARS05001

ETS TRANSITION

BLUEPRINT PROJECTS

School & Department Based Technology Support

Purpose: Focus on the IT Organizational Development staffing needs for schools and departments.

Benefits: Identify several possibilities for technical support at the schools and departments.



ETS05006
RAE05002

ETS TRANSITION BLUEPRINT PROJECTS

County Wide Summit on Technology Learning and Economics ($0)

CANCELED 11/15/04

Student Information Systems Review

97% COMPLETE [$125,000]

Benefit: Improve the user interface for TERMS

Future Project:
Pinnacle Classroom Management System Implementation

This is a future project that is scheduled to start with the 2005 - 2006 School Year. Implementation should be completed by the start of the 2008 school year.

Benefits:

- **Pinnacle is a teacher productivity tool.**
- **Electronic transfer of attendance and grades to TERMS.**
- **Eliminate the need for attendance cards, bubble sheets, or had written interim reports and for hand written elementary report cards.**
- **Ability to analyze all data on a district wide basis.**

ETS Blueprint Projects

Completed Projects

100% COMPLETE - 5/17/05

ETS05027

Medium Priority

Appoint District Continuity Project Manager

Objective: Establish a new position within ETS to manage Information Security and Continuity Planning

Benefits: The district will have a resource to monitor and maintain district continuity plans and IT security

100% COMPLETE - 6/25/04

ETS05028

High Priority

School / Department Checklist for Disaster Recovery (DR)

Objective: Extend DR strategy to include critical processes continuity for schools / departments

Benefits: Schools will be able to continue business during and following a disaster situation.



100% COMPLETE - 3/27/05

ETS05030

Medium Priority

Mainframe Upgrade Project

Objective: Develop a strategy to upgrade, use and maintain the mainframe over the next several years

Benefits: Mitigate the mainframe demand problem.

ETS05032

100% COMPLETE - 5/27/05

High Priority

Re-establish Technology Standards Committee

Purpose: To ensure interoperability of all elements of the system and to simplify maintenance, support, and asset management.

Benefits: Optimize total cost of ownership and leverage purchasing power.



100% COMPLETE - 5/27/05

ETS05045

High Priority

Broward Parentlink Project

Purpose: To implement an automated, centralized callout solution to report student attendance.

Benefits:

- **Build and strengthen communication between schools and students, parents, and communities.**
- **Minimal site-based support and operational requirements.**



ETS Blueprint Projects

Sampling of Projects in Progress

CUR05001

46% COMPLETE

High Priority

Comprehensive Approach for building a CD/IM System

Three year project - PHASE 1 - 100% COMPLETE

Purpose: Create a single access point to Instructional and Curriculum Resources for Teachers and Students.

Benefits:

- Consolidation of web-based Curriculum resources now difficult to find and alignment of resources to state standards.
- Currently being piloted in Digital Learning Environment Study schools, DETA courses, New Teacher Academy and Critical Content Training.
- Joint: Curriculum and ETS Project

CUR05009

25% COMPLETE

Low Priority

Student Technology Internship Program – STIP

Purpose: Provide various learning experiences enabling students to acquire advanced technology skills through workplace learning experiences.

Benefits: Students become more engaged in their academic and technical studies by offering them the opportunity to apply academic and technical competencies to an IT related job.



CUR05006
ETS05044

High Priority

Digital Learning Environment Study (DLES)

85% COMPLETE

Support of DLES

81% COMPLETE

Purpose: Evaluate the effect of providing student laptop computers, curriculum resources and professional development and integration strategies on daily classroom practice and school reform

Benefits: This study will provide research and evaluative data to plan and implement digital learning environments in all schools

Joint Curriculum/ETS Project

ETS05001

8% COMPLETE

High Priority

Enterprise Resource Planning

5 Year Project

Purpose: Integrate Business Applications into one Comprehensive System (SAP)

Benefits: Improve Productivity, Eliminate Duplication, Reduce Errors

ETS05005

77% COMPLETE

High Priority

Data Warehouse Access Software Upgrade

Purpose: Install the Hyperion Performance Suite as an upgrade to the BRIO Query software tool used to develop reports from the data warehouse

Benefits:

- Provide schools with an easy to use web interface for accessing reports.
- Develop administrative dashboards that allow both school and district staff to track school accountability indicators. (FCAT, attendance, discipline, and class size)

74% COMPLETE

ETS05009

Medium Priority

AS/400 Consolidation Project

Objective: Upgrade the district AS/400s in order to allow centralization of TERMS, thus eliminating the need for AS/400s at each school

Benefits: Easier management, lower support costs



47% COMPLETE

ETS05012

High Priority

Central Software Distribution

Objective: Implement a central software distribution system to deliver applications and patches

Standardize desktop images, perform hardware and software inventory

Manage licenses and provide remote assistance

Benefits:

- **Easier management**
- **Network security**
- **Desktop maintenance**

ETS05016

76% COMPLETE

High Priority

Portable Building Connectivity

Purpose: Complete expansion of communications infrastructure to all portable buildings.

Benefits: To ensure the equity of network access to all students and staff.



ETS05017

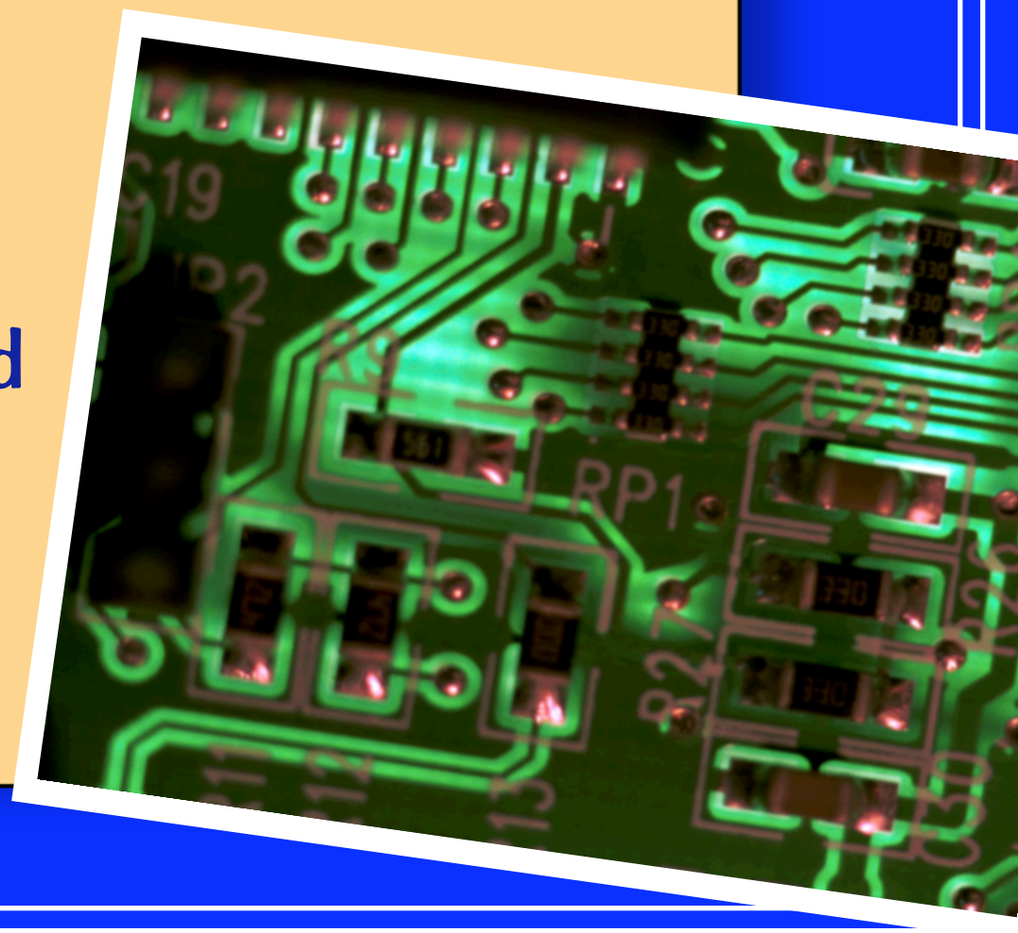
29% COMPLETE

Medium Priority

Network Authentication

Objective: Develop a comprehensive solution for network authentication, single sign-on and user management

Benefits: Users will only have to maintain one credential, increased security, easier management



ETS05025

71% COMPLETE

High Priority

Service Level Management

Projected end 6-23-05

Purpose: Establish Service Level Agreements (SLA) for 5 critical business applications



Benefits: Improved service levels for end users

ETS05029

51% COMPLETE

High Priority

Time Management Broward County Workforce (KRONOS)

Purpose: Eliminate Time Cards and implement an automatic system that would feed into the district's payroll system.

Benefits:

- To allow for more timely and accurate entry into the payroll system.
- Reduce payroll error rate
- Simplify the Substitute Teacher payroll process
- Eliminate the need for duplicate payroll entry
- Separate the work order system (Compass) from the payroll system (SAP)

ETS05041

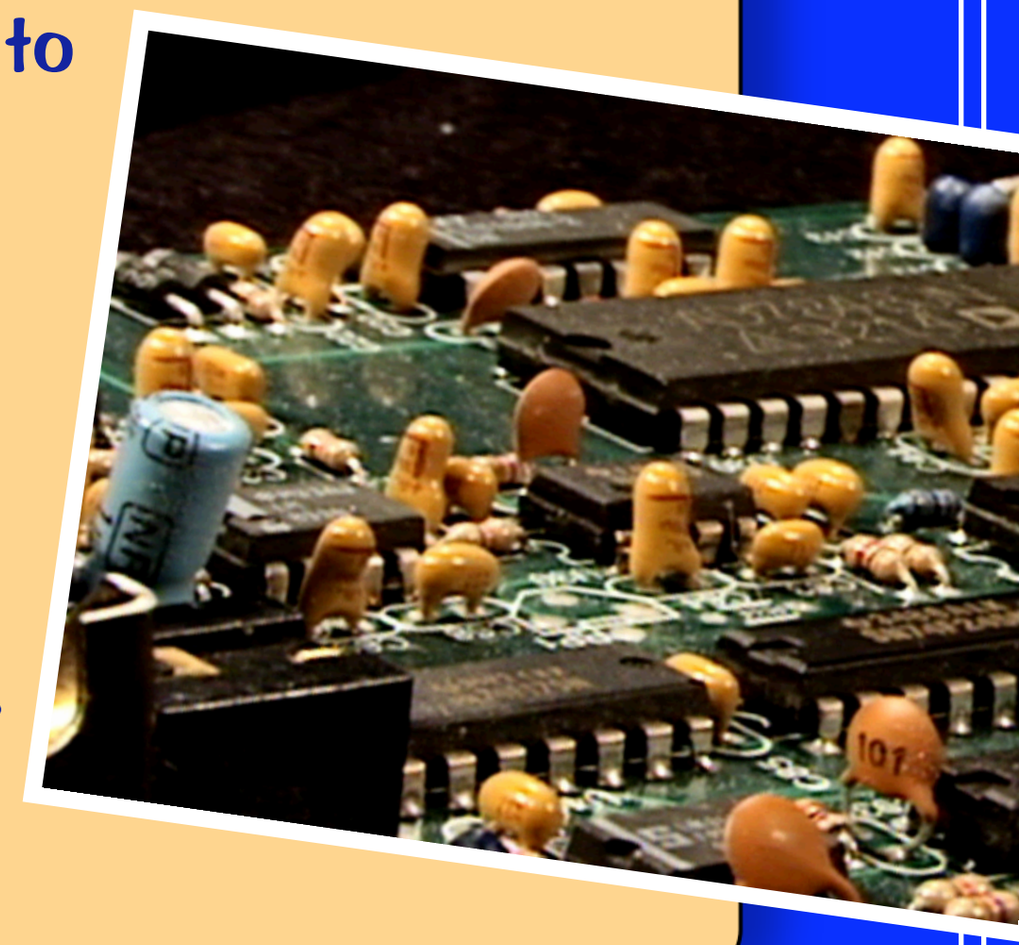
15% COMPLETE

High Priority

Operating System/Memory Upgrade for Computers

Purpose: Standardize computers to current operating systems and increase memory to minimum specifications.

Benefits: Improve efficiency and maximize technology investments.



ETS05033
ETS05046

High Priority

Quality and Customer Service
Total Cost of Ownership (TCO)

73% COMPLETE

Purpose: Establish a baseline TCO

Benefits: Manage TCO by projects

Educational Technology Plan

5% COMPLETE

Purpose: Prepare mandatory technology compliance documentation for state approval

Benefits: Remain eligible for state and federal technology funding

ETS05039

59% COMPLETE

Medium Priority

Digital Divide

Purpose: Pilot the refurbishing of SBBC surplus computers for eligible recipients

Benefits: Increase home technology use for low-income families



ETS05047

34% COMPLETE

Medium Priority

Customer Relationship Management (CRM)

Purpose: Implement mySAP CRM system, Phase One

Benefits: improved customer-service, Web based self service, Call data Analysis and enhanced reporting capabilities.

HRS05001

64% COMPLETE

High Priority

Conversion to District Wide Bi-Weekly Payroll

Purpose: Payroll Rewrite – to reduce the number of pay schedules.

Benefits:

- **Reduce the number of payroll exceptions.**
- **Improve the efficiency for processing and running payrolls**
- **Enhance employee financial planning**



STP05001

46% COMPLETE

Medium Priority

Community Access and Engagement

Purpose: Ensure that the community is Aware and Informed about District's Technology Initiatives



Benefits: Effective Communication with Parents, Schools and Business Community

STP05004

16% COMPLETE

High Priority

Distance Learning

Purpose: Enhance both work and learning environments through Distance Learning.

Benefits: Move conferencing and distance learning more deeply into daily classroom and district department practices, positively impacting student achievement.



57% COMPLETE

STP05005

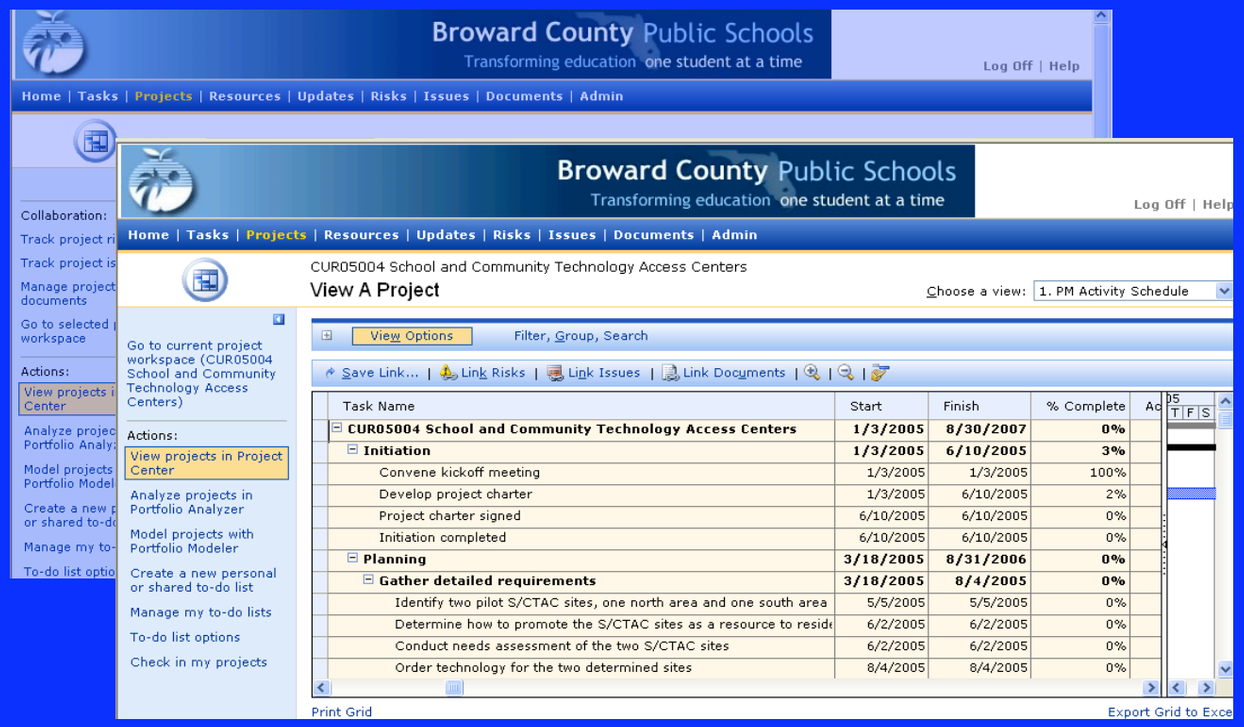
Low Priority

Virtual Advanced Community Learning Centers

Purpose: Develop and implement Sheridan Vocational Center's "eLearning Broward" as an online adult education pilot.

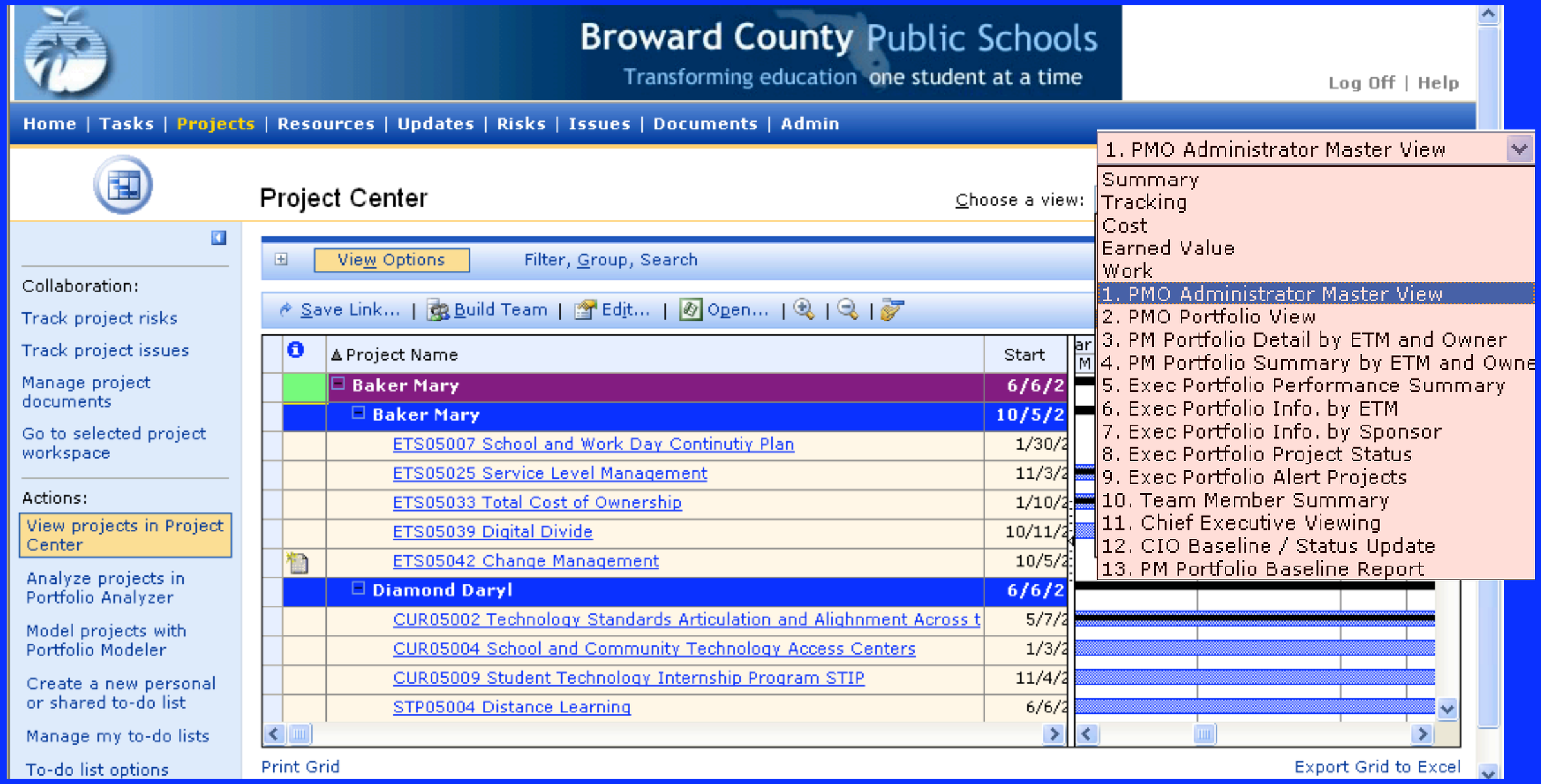
Benefits: Enable adult learners in the South Florida region to participate in adult online courses.

Executive Training:
View the Status of Projects



- Shows the portfolio of projects stored on the database
- Allows drill down to view schedule details (read-only)

Project Center



See Sample View of all Projects: Executive PMO 6-28.pdf

Project View

Broward County Public Schools

Transforming education one student at a time

Log Off | Help

Home | Tasks | Projects | Resources | Updates | Risks | Issues | Documents | Admin

CUR05004 School and Community Technology Access Centers

View A Project

Choose a view: 1. PM Activity Schedule

Go to current project workspace (CUR05004 School and Community Technology Access Centers)

Actions:

- View projects in Project Center
- Analyze projects in Portfolio Analyzer
- Model projects with Portfolio Modeler
- Create a new personal or shared to-do list
- Manage my to-do lists
- To-do list options
- Check in my projects

View Options | Filter, Group, Search

Save Link... | Link Risks | Link Issues | Link Documents

Task Name	Start	Finish	% Complete	Ac
CUR05004 School and Community Technology Access Centers	**1/3/2005**	**8/30/2007**	**0%**	
Initiation	**1/3/2005**	**6/10/2005**	**3%**	
Convene kickoff meeting	1/3/2005	1/3/2005	100%	
Develop project charter	1/3/2005	6/10/2005	2%	
Project charter signed	6/10/2005	6/10/2005	0%	
Initiation completed	6/10/2005	6/10/2005	0%	
Planning	**3/18/2005**	**8/31/2006**	**0%**	
Gather detailed requirements	**3/18/2005**	**8/4/2005**	**0%**	
Identify two pilot S/CTAC sites, one north area and one south area	5/5/2005	5/5/2005	0%	
Determine how to promote the S/CTAC sites as a resource to reside	6/2/2005	6/2/2005	0%	
Conduct needs assessment of the two S/CTAC sites	6/2/2005	6/2/2005	0%	
Order technology for the two determined sites	8/4/2005	8/4/2005	0%	

05 T F S

Print Grid

Export Grid to Exce

PMO Executive Training

Training Classes

#1 Thursday, June 23, 2005

#2 Thursday, July 14, 2005

Time & Location

1-3 PM

KCW 10th Floor

Conference Room

For reservations contact:



EduStat Public School CIO of the Year

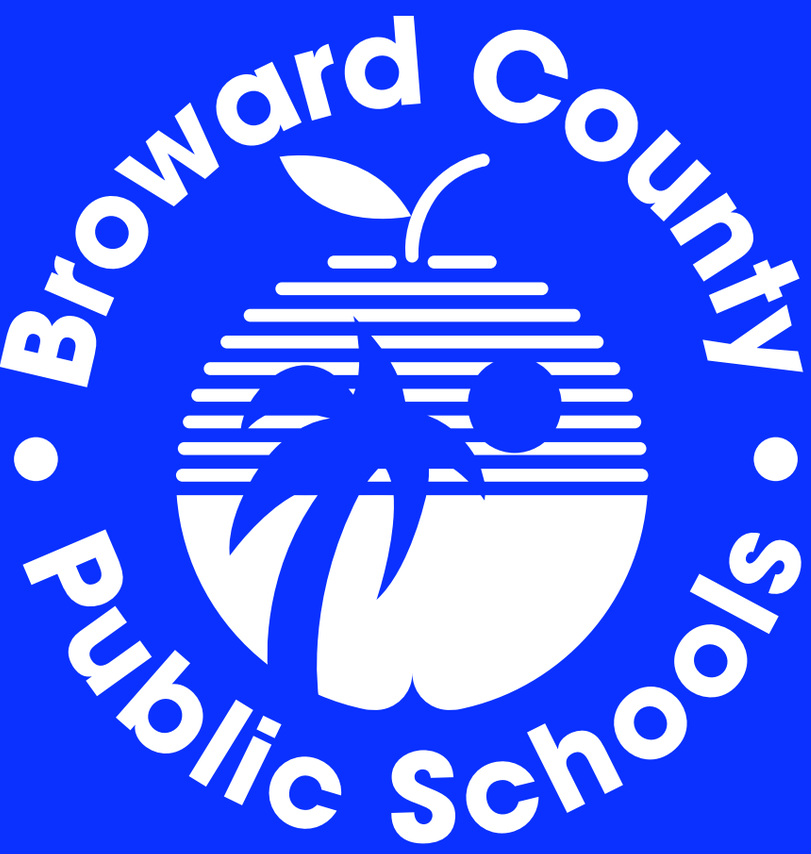


EduStat congratulates
and recognizes

Vijay Sonty

for his significant
contributions in the use of
technology to improve
academic achievement and
administrative processes.

June 2005



Transforming education one student at a time

Thank You!






Section IV -- Funding Sources

4.1

Identification of major sources of funding for district-wide technology needs. To the extent possible, funding sources should be categorized as recurring or nonrecurring and include real and projected dollar amounts for the technology plan period.

CAPITAL BUDGET
FY 2005-2006 TO 2009-2010

	BLUEPRINT CATEGORY AND ITEM DESCRIPTION	ACTIVITY NUMBER	BUDGET FORECAST FY 05-06	BUDGET FORECAST FY 06-07	BUDGET FORECAST FY 07-08	BUDGET FORECAST FY 08-09	BUDGET FORECAST FY 09-10	BUDGET 5-YEAR TOTAL
1	***DISTRICT INSTRUCTIONAL TECHNOLOGY INITIATIVES***							
1.1	**COMPREHENSIVE APPROACH FOR BUILDING A CD/IM STSTEM**	79954						
	Funds will be used to purchase related hardware and servers to support the integration of the Curriculum Development/Instructional Management teacher portal system. The CD/IM will deliver high quality content, digital resources and management tools for teachers to use in the delivery of curriculum. In addition, these funds will provide the servers and infrastructure support needed to implement the standard electronic gradebook that is projected to be implemented during the 2004-2005. The electronic gradebook will be integrated into the CD/IM portal. Funds will also be used to update current servers and purchase additional hardware to accommodate to the growth in use of Integrated Learning Systems.		300,000	300,000	300,000	300,000	300,000	1,500,000
1.2	**DIGITAL LEARNING ENVIRONMENT STUDY PROJECT**	70551						
	These funds will enable additional schools to participate in a project to provide students with wireless digital devices for learning curriculum content, communicating knowledge acquisition, collaborating with peers and producing electronic portfolios of work. The funds will also be used to procure student digital devices, servers for storing student work and infrastructure upgrades to the network to enable a wireless campus at the participating schools. An evaluation process will continue to be used to determine the effectiveness of the implementation on the student achievement.		5,000,000	5,000,000	5,000,000	5,000,000	5,000,000	25,000,000
1.3	**STUDENT BENCHMARK ASSESSMENT MANAGEMENT SYSTEM**	70450						
	A student benchmark assessment system would provide each school with the ability to track student progress as measured against the Florida Department of Education's set of benchmarks. Currently there is no system in place to measure students between FCAT testing in March. This system would provide schools with two or three data points prior to the March FCAT testing and then use the results to modify individual and school-wide instructional curriculum.		0	0	0	0	0	0
2	***TEACHING AND LEARNING TECHNOLOGIES***							
2.1	**EMERGING TECHNOLOGIES**	79258						
	Funds will be used to implement a "thin client" technology solution that will facilitate the deployment of new administrative and instructional systems. Funds will procure centralized servers that enable server-based computing.		200,000	100,000	100,000	100,000	100,000	600,000
2.2	**DIGITAL DIVIDE PROGRAM**	NEW						
	The core element of the district's instructional technology plan focuses on providing access to web-based instructional resources for students and their families on a 24x7 basis. This funding will be used for parts and peripherals to refurbish and data cleanse surplus computers for distribution to eligible low-income families.		100,000	50,000	50,000	50,000	50,000	300,000
3	***SCHOOL FACILITIES AND LEARNING ENVIRONMENTS***							
3.1	**UPGRADE PORTABLE BUILDINGS (CLASSROOMS)**	79178						
	Funds will be used on portable classroom technology upgrades using appropriate combinations of integrated technology solutions. This project is designed to provide students and teachers equitable access to electronic learning resources (instructional software systems, Internet, research tools, etc.) when they are located in portable classrooms. Teachers will also benefit from access to centralized data (supporting improved decision makeing) and administrative record-keeping systems.		4,500,000	500,000	500,000	500,000	500,000	6,500,000
3.2	**TECHNOLOGY ENHANCEMENT/UPGRADE AND REFRESH PLAN**	79256						
	This plan would adopt an efficient model to procure technology, dispose of legacy computer systems and establish a refresh process to keep equipment a maximum of four years. The refresh plan would standardize computers to current operating systems and software, and implement an automated process to update OS and applications as they emerge. This strategy would focus on upgrading classroom, school and district technologties and enable the district to move towards its vision of supporting an Enterprise Portal, teaching and learning with standard systems that are easier and less expensive to maintain.		10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
3.3	**DISTANCE LEARNING/VIDEO CONFERENCING**	79173						
	During the preceding three years, the district has installed distance learning (videoconferencing systems) at all but approximately 60 locations. In order for all students and educators to have equitable and effective access to technology during and beyond the school day, an additional 60 conferencing systems, along with necessary hardware, are required. The systems are currently being utilized for school curriculum, administrative, and professional development requirements. Additionally, the audio bridge should be refreshed as the current audio-conferencing platform will no longer be supported by the manufacturer.		1,400,000	300,000	300,000	300,000	300,000	2,600,000

CAPITAL BUDGET
FY 2005-2006 TO 2009-2010

	BLUEPRINT CATEGORY AND ITEM DESCRIPTION	ACTIVITY NUMBER	BUDGET FORECAST FY 05-06	BUDGET FORECAST FY 06-07	BUDGET FORECAST FY 07-08	BUDGET FORECAST FY 08-09	BUDGET FORECAST FY 09-10	BUDGET 5-YEAR TOTAL
3.4	**TRANSFORM THE ROLE OF LIBRARY/MEDIA CENTERS TO INFORMATION AND TECHNOLOGY CENTERS**	70550						
	These funds will be used to update the technologies in the current media centers to better support student achievement in the area of information literacy skill development and classroom utilization of technology. The vision of this project is to help transform school library/media centers into information and technology centers that support students becoming 21st century lifelong learners who have an understanding of how to access analyze, communicate, and use electronic information.		500,000	500,000	500,000	500,000	0	2,000,000
4	***Organizational Development and Staffing***							
4.1	**CUSTOMER RELATIONSHIP MANAGEMENT (CRM) SYSTEM**	79824						
	This project is the replacement of the current CRM system which is reaching it's end of life. The new CRM system will provide a foundation to build a one-call customer-focused service center. It will be web-enabled and will allow customers using the browser to: request services and check service request status; report problems and check status of open problems and allow users to search for solutions. (Carryover dollars will be used to purchase equipment to support the CRM project)		0	0	0	0	0	0
4.2	**TIME MANAGEMENT (KRONOS)**	70451						
	This project is a district wide implementation of a time management system which will provide improved efficiency in dealing with overtime pay issues as we maintain compliance with Fair Labor Standards Act (FLSA). Expected results would improve payroll accuracy and accountability for all district employees. Project costs include the data wiring and power upgrades necessary to connect biometric time-clocks at all District sites.		1,000,000	200,000	0	0	0	1,200,000
5	***STAFF DEVELOPMENT AND LEARNING ENVIRONMENTS***							
5.1	**ONLINE AND COMPUTER BASED STAFF DEVELOPMENT**	70353						
	These funds will be used to upgrade district hands-on-training labs, wireless training labs required servers and other peripharals to maintain a high quality training environment required by district needs. Additionally, funds will be used to support online professional development for all SBBC employees. Support the online course delivery system and associated online content for professional development and training.		200,000	100,000	100,000	100,000	100,000	600,000
6	***STANDARDS, PROCUREMENT AND MAINTENANCE***							
7	***POLICIES AND PROCEDURES***							
8	***DISTRICT, SCHOOL & PROGRAM LEVEL PLANNING PROCESS***							
9	***BUSINESS APPLICATIONS & DECISION SUPPORT SYSTEM***							
9.1	**DATA WAREHOUSE**	79825						
	These funds will be used to expand capacity and provide for the addition of new features for our award winning data warehouse project started in the 1997/98 school year. The data warehouse originally contained only student data but is being expanded to contain data from the work order system (COMPASS), the SAP Human Resource Management System, and the financial system (MSA), as well as student test results stored in school Instructional Learning Systems.		0	200,000	0	200,000	0	400,000
9.2	**DEPARTMENT EQUIPMENT UPGRADES**	79913						
	Each year ETS supports one or more departments in need of end user and network upgrades to enable continuous district support of schools. These funds are used to upgrade the equipment at the District's support sites, inclusive of (but not limited to) network equipment, wireless components, switch version upgrades, computers, servers, and printers (Site survey will be completed to identify department needs prior to purchase)		500,000	300,000	300,000	300,000	300,000	1,700,000
9.3	**ERP (ENTERPRISE RESOURCE PLANNING)**	N/A						
	Funding provides for implementation of an ERP Solution for the district, including application software, hardware, and Infrastructure support . This would include implementation of a Financial Management System, Purchasing System, Facilities Management System, Asset Management System, and Work Order System, plus future upgrades for HRMS/SAP Payroll system.		500,000	500,000	500,000	500,000	500,000	2,500,000
9.4	**DOCUMENT MANAGEMENT SYSTEM**	NEW						
	The ever increasing amount of electronic documents and imaged documents has created the need for a document management system. Just as the need to store and access digital data (structured data) in one repository has become a requirement of "best business" practice, the time has come to mimic that practice with respect to work documents (unstructured data). WIthout a document management system, the cost of doing document related non-value-added tasks will increase between 30 and 40 percent		1,500,000	500,000	0	0	0	2,000,000

CAPITAL BUDGET
FY 2005-2006 TO 2009-2010

	BLUEPRINT CATEGORY AND ITEM DESCRIPTION	ACTIVITY NUMBER	BUDGET FORECAST FY 05-06	BUDGET FORECAST FY 06-07	BUDGET FORECAST FY 07-08	BUDGET FORECAST FY 08-09	BUDGET FORECAST FY 09-10	BUDGET 5-YEAR TOTAL
10	***COMMUNICATIONS AND NETWORK INFRASTRUCTURE***							
10.1	**INFRASTRUCTURE UPGRADES**	79257						
	This project is designed to upgrade the wired network infrastructure and establish a standard wireless overlay in specific schools in Broward. The long term objective is to provide every school with the core components of an enterpirse class wireless solution.		2,130,000	1,000,000	1,000,000	1,000,000	1,000,000	6,130,000
10.2	**WAN STRATEGY**	79921						
	Projects for 2005-2006 include: Upgrade network security for single signon environment; upgrade core network infrastructure for additional capacity; and infrastructure upgrades at schools locations to support migration to new MetroEthernet network		3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
10.3	**BECON BROADBAND WIRELESS PROJECT**	70556						
	This demonstration project will validate the use of District owned ITFS licenses for transmission of video and data over an Internet protocol wireless network. This network can potentially provide redundancy and added capacity to the wired wide area network.		0	200,000	0	0	0	200,000
10.4	**HARDWARE UPGRADE SOLUTION**	NEW						
	Projects for 2005-2006 include: Upgrade HRMS application servers for additional capacity; upgrade mainframe and application servers for new financial application; electrical power upgrades for additional servers; replace transportation server; upgrade existing servers reaching end of life; installation of network monitoring system to manage Service Level Agreements; upgrade infrastructure to facilitate disaster recovery efforts; and upgrade the network infrastructure to facilitate network convergence and video delivery to the desktop.		2,500,000	500,000	500,000	500,000	500,000	4,500,000
10.5	**CENTRAL SOFTWARE DISTRUBUTION**	NEW						
	This project is to install central servers to manage desktop computers for the delivery of critical software updates and to manage software licensing.		300,000	0	0	0	0	300,000
10.6	**COMMUNICATIONS CONTINUITY PLAN**	NEW						
	This project is to implement continuity plans for information systems at the schools and department levels. These individual school and department plans will be integrated into the District's data disaster recovery processes		500,000	0	0	0	0	500,000
11	***COMMUNITY ACCESS AND PARTICIPATION***							
12	***MONITORING AND EVALUATION DESIGN***							
13	***BUDGET, FUNDING, AND COST SAVINGS***							
13.1	**CAPITALIZED COSTS:**	79911						
	Technical support for unplanned projects initiated throughout the district. These types of initiatives may become future capital technology projects.		200,000	200,000	200,000	200,000	200,000	1,000,000
	Total		**34,330,000**	**23,450,000**	**22,350,000**	**22,550,000**	**21,850,000**	**124,530,000**

USF Approval and Submittal Tracking Form ERATE Year 8 for 2005/2006

Item and Percentage Discount			Form 470 Information					Form 471 Information						Total Costs		USF Discount
Item	Category of Service	USF % Disc.	Entered Via Web Form 470	Form 470 Number	Sent Sig Sheets Form 470	Rcd SLD Confir Ltr Form 470	Allowable Contract Date	Entered Via Web Form 471	Form 471 Number	Security Code	FRN	Sent Fed Ex Form 471 Sig Sheets and Attachments	Rcd SLD Confir Ltr Form 471	Total Cost	Total Cost to SBBC After Discount	USF Discount
ATM–BellSouth	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	463080	28937	1277999	2/16/05	4/25/05	$882,200.64	$344,058.25	$538,142.39
Basic Main–Ports–BellSouth	Internal	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	466730	56507	1283260	2/16/05	3/14/05	$358,912.44	$139,975.85	$218,936.59
BellClub–BellSouth	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	452005	6428	1272524	2/16/05	3/14/05	$2,375,862.12	$926,586.23	$1,449,275.89
Cellular Service–Cingular	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	463064	37784	1277970	2/16/05	3/14/05	$302,850.00	$118,111.50	$184,738.50
DSL–Charters–BellSouth	Telecom	53%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	463081	42127	1319790	2/17/05	3/14/05	$131,040.00	$61,588.80	$69,451.20
Internal Connections–80%	Internal	80%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	463074	32891	1320147	2/17/05	3/14/05	$32,870.84	$6,574.17	$26,296.67
Internal Connections–80%	Internal	80%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	463074	32891	1320188	2/17/05	3/14/05	$15,253.16	$3,050.63	$12,202.53
Internal Connections–80%	Internal	80%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	463074	32891	1320237	2/17/05	3/14/05	$20,875.00	$4,175.00	$16,700.00
Internal Connections–80%	Internal	80%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	463074	32891	1320263	2/17/05	3/14/05	$124,244.00	$24,848.80	$99,395.20
Internal Connections–90%	Internal	90%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	478114	36632	1320888	2/17/05	3/14/05	$1,302,175.40	$130,217.54	$1,171,957.86
Internal Connections–90%	Internal	90%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	478114	36632	1320900	2/17/05	3/14/05	$577,674.40	$57,767.44	$519,906.96
Internal Connections–90%	Internal	90%	N/A	111570000460331	N/A	N/A	N/A	2/16/05	478114	36632	1320906	2/17/05	3/14/05	$104,665.72	$10,466.57	$94,199.15
Internet Access–BellSouth	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	463076	11434	1277983	2/16/05	3/14/05	$837,200.64	$326,508.25	$510,692.39
ISDN–BellSouth	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	452005	6428	1272555	2/16/05	3/14/05	$7,599.96	$2,963.98	$4,635.98
METRO Ethernet–BellSouth	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	463080	28937	1278004	2/16/05	4/25/05	$3,312,319.95	$1,291,804.78	$2,020,515.17
Pager Service–Arch	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	463064	37784	1277965	2/16/05	3/14/05	$160,976.83	$62,780.96	$98,195.87
PRI T-1–BellSouth	Telecom	61%	N/A	111570000460331	N/A	N/A	N/A	2/11/05	452005	6428	1272574	2/16/05	3/14/05	$2,134,578.00	$832,485.42	$1,302,092.58
TOTALS														$12,681,299.10	$4,343,964.18	$8,337,334.92

1) ATM and METRO Ethernet (WAN)
2) Basic Main–Ports (BASICMAIN)
3) BellClub, ISDN, and PRI (SHAREDTEL)
4) Cellular Service and Pager Service (CPSERVICE)
5) DSL–Charters (CHARTERS)
6) Internal Connections (INTERNAL 80%)
7) Internal Connections (INTERNAL 90%)
8) Internet Access (INTERNET)

Fed Ex Tracking for Signature Sheets and Item 21 Attachments for 1, 2, 3, 4, and 8–Picked up from SBBC on 2/16/05 and arrived at SLD on 2/17/05.
Fed Ex Tracking for Signature Sheets and Item 21 Attachments for 5, 6, and 7 (need to Fed Ex Item 21 attachments for 6 and 7)–Picked up from SBBC on 2/17/05 and arrived at SLD on 2/18/05.

4.2

Documenting (to the extent practical) a sufficient budget to acquire, support, and maintain essential hardware, software, professional development opportunities, and other services needed to implement strategies identified for improving educational services.

Major Funding Sources for the Exceptional Student Education

Approximately, funding from the Exceptional Student Education Department in the amount of $300,000-350,000 is allocated for acquiring assistive technology for students who have been assessed as needing these devices to meet their IEP goals and related educational needs.

In addition, Florida Diagnostic and Learning Resources System (FDLRS), Technology Solutions Lab and Assistive Technology Education Network (ATEN) South Regional Lab provide instructional and assistive technology resources for preview and check-out to educators and teachers of exceptional students.

EDUCATION TECHNOLOGY SERVICES
FY 05/06 HARDWARE MAINTENANCE

Vendor	Product Description	AGENDA ITEM FY 04/05	FY 04/05 ACTUAL COST	APPROVED BUDGET	
ADI	Security Access/Integrated Energy Parts	1,500.00	1,500.00	1,500.00	No Change
Audio Visual Solutions	Video Conferencing Systems Warranty	0.00	0.00	100,000.00	Original Warranty expired. This is maintenance support for FY 05/06
Avaya Communications (Lucent)*	Video Conferencing Bridge (Parts & Labor)--Purchase of new bridge would include warranty for 5 years. Previous	21,424.20	21,424.20	0.00	Contract Cancelled
Dell	Warranty on Dell Servers	0.00	15,795.00	100,000.00	Warranty on Dell Servicers are expiring. This line item is to secure maintanance support of additional Dell Servers coming off warranty in FY 05/06
Eastman Kodak (Bell & Howell)	Maintenance Agreement for Imaging Scanners	5,954.00	5,954.00	6,198.00	Annual Increase
Hewlett Packard Company	Maintenance for the Sure Optical Jukebox	1,680.00	6,720.00	7,260.00	Annual Increase
IBM Corporation	Hardware Maintenance	1,319,777.54	273,176.87	245,620.10	Decrease due to new support requirements on Surplus equipment
JDL Technologies	Aruba (Due 6/07)	0.00	0.00	0.00	Maintenance support paid through 5/07
JDL Technologies	BIGIP F5 (Due 12/5)	0.00	0.00	6,520.00	Warranty expires - New maintenance support due 12/05
JDL Technologies	HP Openview (Due 6/07)	0.00	0.00	0.00	No funding needed for FY05/06. Paid through 5/07
JDL Technologies	PIX Firewall	0.00	0.00	5,280.00	New Maintenance Request beginning 7/1/05
JDL Technologies	Smartnet on Core Routers	0.00	0.00	5,000.00	New Maintenance Request beginning 7/1/05
JDL Technologies	Xstop (Due 03/06)	0.00	0.00	1,760.00	New Maintenance Request beginning 3/06
Mainline Information	AS 400 Maintenance	0.00	859,439.56	154,578.45	Decrease in support due to conversion from AS400 in schools to X Series Servers
Mainline Information	Annual Maint for UPS that supports AS 400	0.00	150,916.44	26,661.90	Decrease in support due to conversion from AS400 in schools to X Series Servers
Milner Document Products (frmly James	Maintenance for Micrographics Equipment	3,025.00	3,025.00	3,025.00	No Change
Mobile Communications, Inc.	Monthly maintenance contract fee @ $3.00 per month times 30 radios and moves, changes, and repairs to site-based radio equipment	2,000.00	2,000.00	2,000.00	No Change
NCS Pearson	Maintenance for OpScan 21 Image Scanner	15,108.00	15,108.00	10,242.00	
Peak Technologies/Moore	Maintenance for Distribution Services Equipment	14,950.80	14,950.80	14,950.80	No Change
Power Distribution Inc. (PDI)	Maintenance of Power Reconditioning Unit for the Computer Operations Center	1,600.00	1,600.00	1,600.00	No Change
Rosetta Technologies	Maintenance for IP40 Printers	3,750.00	3,750.00	4,125.00	Annual Increase included
Roth Brothers	Security Access/Integrated Energy	90,000.00	100,000.00	100,000.00	No Change
Secure Data Storage	Off-Site Storage	12,000.00	12,000.00	12,000.00	No Change
Storage Technology	Maintenance on Impact Printer	14,460.00	14,460.00	14,459.78	No Change
VSGI	Unit cost to provide V-TEL Conference System Equipment Warranty(Contract Discontinued for 05/06)	84,948.00	84,948.00	0.00	Contract Cancelled
VSGI	Unit cost to provide shared card warranty,service parts and telephone support for Polycom(Contract Discontinued for 05/06)	15,900.00	15,900.00	0.00	Contract Cancelled
	Total	**1,608,077.54**	**1,602,667.87**	**822,781.04**	

EDUCATION TECHNOLOGY SERVICES
FY 05/06 SOFTWARE/MAINTENANCE

Vendor	Product Description	AGENDA ITEM FY 04/05	FY 04/05 ACTUAL COST	FY 05/06 APPROVED	COMMENTS
ADB Systems, Inc.	Maintenance for Compass Work Order System	**36,660.00**	**36,660.00**	36,660.00	No Change
ADB Systems, Inc.	Software Annual License (15% of $15,000.00)	**2,250.00**	**2,250.00**	2,250.00	No Change
Advanced Processing & Imaging, Inc.	Opti View Maintenance	**30,253.60**	**30,253.60**	33,278.96	No Change
Advanced Processing & Imaging, Inc.	Opti Spool Districtwide License (Maint Prepard to 6/07)	**300,000.00**	**324,450.00**	0.00	Maintenance paid through 6/06
Advanced Processing & Imaging, Inc.	Opti View Document Management Software	**0.00**	**0.00**	13,000.00	New to this Agenda - Services transferred from Facilities (Ed Hineline)
Allen Systems Group (Landmark Systems)	ASG-TMON for CICS/VSE	**9,077.35**	**27,171.03**	10,438.95	FY04/05 cost included one-time expenditure
Apple	Elluminate Midsize Enterprise Package maintenance	**0.00**	**65,850.00**	65,850.00	No Change
Blackboard, Inc.	Blackboard Learning System Enterprise Edition Annual online support	**65,250.00**	**91,000.00**	199,010.00	Expansion of Licenses and Support Requirements
CSI International/B.I. Moyle & Associates	Annual Maintenance	**20,551.25**	**7,551.25**	9,850.00	Expansion of Licenses and Support Requirements
Celcorp	Support & Maintenance for Celview for Macintosh	**33,314.40**	**33,314.40**	33,314.40	No Change
Cisco (Former Latitude)	Audio Servers Maintenance	**59,085.00**	**59,085.00**	60,000.00	No Change
CompassLearning **(Bid Exempt)**	Software Maintenance Support (Compass Learning Odyssey)	**550,000.00**	**83,445.00**	425,088.00	New Licenses and Support for FY05/06. Note: FY04/05 licenses and support paid against Agenda Item E-10 dated 9/21/04
Computer Associates	Software support for mainframe	**124,356.44**	**32,217.28**	136,792.00	FY05/06 increase due to Mainframe Upgrade and the need for additional software maintenance and support
Edulog	Transportation software maintenance	**0.00**	**0.00**	33,000.00	New to this Agenda - Services transferred from Facilities (Ed Hineline)
EPI-Use America Inc.	Data Sync Manager	**0.00**	**51,491.00**	6,716.00	FY 04/05 payment includes licenses and maintanence. FY 05/06 only paying for maintenance
Faronics Technologies (Deep Freeze) *Price Increase due to upgrade from Professional to Enterprise. Purchase 4,940 OXs licenses.	Deep Freeze (20,000 Professional Individual Workstation Licenses, Yearly Support & Maintenance, Professional Media & Documentation 9X/ME & 2000/XP)	**55,472.26**	**55,472.35**	21,448.40	FY04/05 - Paid for licenses and 1 yr maintenance. FY05/06 - Payment would be for maintenance only
FileMaker Pro	District Licenses and Professional Support Services	**719.00**	**50,719.00**	100,719.00	from 7/1/04 thru 6/30/07. In FY04/05 paid vendor 1st installment. Final Payment of $100,000 is due 7/05. Additionally, $719.00 represents payment for Professional Support for FY05/06
Gartner Group	Two advisor seats, unlimited "reader" seats and two symposium tickets	**0.00**	**31,415.00**	31,415.00	No Change
GEAC Computer Systems **(Bid Exempt)**	Management Analysis & Resp. IBM/VSE Expertlink	**136,631.00**	**136,631.00**	147,562.00	Increased amount due to expansion in support requirements and % annual incease
Hyperion Solutions Corporation **(Bid Exempt)**	BRIO (16839 Pool of Funds - Brio Enterprise Renewal Maintenance	**52,500.00**	**557,818.56**	81,900.00	the DataWarehouse. FY05/06 funding is for Maintenance support only
IBM Corporation	Software Rental/Lease	**1,312,885.00**	**1,412,968.89**	1,803,410.55	Increased amount due to expansion in support requirements and % annual incease
JDL Technologies	Packeteer PacketCare CSP Standard Services	**0.00**	**5,780.00**	5,780.00	No Change
JDL Technologies	Video Furnace maintenance and tech support (due 6/1/06)	**0.00**	**0.00**	28,862.00	New Request - Used for Video streaming School Board Meetings
Kronos	Software Maintenance	**0.00**	**20,655.00**	69,375.00	New Product - Maintenance supprot for FY 05/06. Original Purchase for equipment with 1 year support was included with purchase of equipment and was paid with Capital funding.
LakeView Technologies	Transformation services maintenance - Transfer data from terms to Data Warehouse(Pd thru 3/08)	**0.00**	**48,240.00**	0.00	No Funding required for FY 05/06. Maintenance paid through 3/08 with original purchase of licenses

VERSION: 5.25

EDUCATION TECHNOLOGY SERVICES
FY 05/06 SOFTWARE/MAINTENANCE

Vendor	Product Description	AGENDA ITEM FY 04/05	FY 04/05 ACTUAL COST	FY 05/06 APPROVED	COMMENTS
Lynx	Photo Management Software	**0.00**		13,000.00	New to this Agenda - Services transferred from Facilities (Ed Hineline)
Media Spinner	Atomic Learning Software Maint Support Pd thru 6/06	**258,100.00**	**355,375.00**	0.00	No Funding required for FY 05/06. Maintenance paid through 6/06 with original purchase of licenses
Microsoft Corporation	Microsoft Gold Support	**10,450.00**	**9,500.00**	9,500.00	No Change
NCS Pearson Inc. (CCC) **(Bid Exempt)**	Software Maintenance Support	**760,000.00**	**803,000.00**	166,950.00	by schools
NCS Pearson Inc. (Nova Net) **(Bid Exempt)**	Software Maintenance Support	**50,700.00**	**50,700.00**	53,235.00	5% Annual Increase
NetiQ Corp	WebTrends	**359.82**	**359.82**	359.82	No Change
One Net (Network Associates)	Virex/McAfee	**333,889.99**	**241,087.00**	122,018.00	05/06 and FY 06/07 SBBC has option to renew licenses for $122,018 each year
Open Text	CAB (Email Maintenance agreement)	**0.00**	**0.00**	52,981.74	Original Warranty expired. This is maintenance support for FY 05/06
Open Text formerly Ixos	Ixos Archive Maintenance includes the SAP Bundle portion	**75,359.04**	**75,359.04**	79,126.99	5% Annual Increase
Open Text formerly Ixos	Modifications to launch Ixos Javawriter applet on Mac OS X $6,000.00, standard upgrades 4.2 > 5.5(Onetime expenditure)	**0.00**	**15,100.00**	0.00	One-time expenditure for FY04/05
Open Text	Rapid Web Design Enterprise (Web Pages for First Class)	**220,000.00**	**0.00**	103,000.00	Original Warranty expired. This is maintenance support for FY 05/06
Open Text	CAB License Renewal and Log Analyzer	**0.00**	**0.00**	60,808.57	Original Warranty expired. This is maintenance support for FY 05/06
Oracle **(Bid Exempt)**	Silver Support	**4,151.73**	**4,151.73**	4,151.73	No Change
Prolog	Project Management Software	**0.00**	**0.00**	20,100.00	New to this Agenda - Services transferred from Facilities (Ed Hineline)
Proofpoint, Inc	Annual Maintenance	**0.00**	**0.00**	21,800.00	New Request - Email Virus Protection
Riverdeep Corporation	Online instructional software for reading and math	**0.00**	**0.00**	325,000.00	New Product. Maintenance Support for Online Instructional software for reading and math in support of the CDIM project.
SAP, Inc.	Maintenance Fee for Software License App7 mySAP Suite (17% $5,335,079)	**501,556.00**	**408,541.54**	906,963.00	Annual Maintenance for the newly acquired SAP/ERP solution software for the district
SAP, Inc.	App3 BSI (42% of $31,500)	**0.00**	**0.00**	13,230.00	software for the district
SAP, Inc.	App8 Additional BSI Records (42% of $22,800)	**0.00**	**0.00**	9,576.00	software for the district
SAP, Inc.	App9 RWD Info Pak (17% of $1,899,448)	**0.00**	**0.00**	322,906.00	software for the district
SAP, Inc.	Remote Connection Maintenance	**1,500.00**	**1,500.00**	1,500.00	software for the district
SDI USA, Inc.	Cache Magic XA	**7,251.30**	**7,079.00**	7,079.00	No Change
Software Diversified Services	Maxback/VSE Software Maintenance	**1,605.45**	**7,644.00**	2,244.00	maintenance only
Software Engineering	CSAR/DOS/VSE Scheduling Sys**(Cancelled Contract)**	**5,839.20**	**0.00**	0.00	Contract Cancelled
Software Pursuits	SPI/DOCS	**8,100.00**	**8,100.00**	8,100.00	No Change
Software House Int (SQL)	SQL Licenses for Compass Learning Odyssey	**0.00**	**26,116.85**	9,000.00	FY 04/05 purchased licenses and maintenance. FY 05/06 request is for maintenance only
Software House Int (Symantec)	Ghost (for all PC's)	**18,900.00**	**18,900.00**	18,900.00	No Change
Software House Int (XP)	District Licenses for Windows Upgrade (XP)	**0.00**	**0.00**	212,495.40	Upgrade & Software. In FY04/05 payment was made against Bid #22-104E
Software House Int	Netbackup for CAB System	**0.00**	**0.00**	3,000.00	New Maintenance support requirements
Software House Int	BackupExec for SAP Servers	**0.00**	**0.00**	4,100.00	New Maintenance support requirements
Software House Int	VMWARE	**0.00**	**0.00**	1,000.00	New Maintenance support requirements
Sungard Recovery Services	Disaster Recovery Services	**57,000.00**	**27,924.00**	55,848.00	FY04/05 paid for 6 months to allow Vendor to realign billing with SBBC fiscal year. In FY05/06 payment for 1 full year is requested.

EDUCATION TECHNOLOGY SERVICES
FY 05/06 SOFTWARE/MAINTENANCE

Vendor	Product Description	AGENDA ITEM FY 04/05	FY 04/05 ACTUAL COST	FY 05/06 APPROVED	COMMENTS
Syncsort Inc.	Rental of DOS VM/VSE 75571 Software	**18,220.00**	**8,380.00**	8,380.00	No Change
Tec Services Consulting, Inc. (Former Terasys (EMO)	CRCS Bridge Scheduling Software Maintenance (This contract will be discontinued for 05/06)	**7,000.00**	**7,000.00**	0.00	Contract Cancelled
The Library Corporation **(Bid Exempt)**	Media Center Management Systems Software Maintenance	**242,531.68**	**142,447.84**	268,022.49	FY04/05 paid for 6 months to allow Vendor to realign billing with SBBC fiscal year. In FY05/06 payment for 1 full year is requested.
VeriSign Inc.	Software Secure Site (browardschools.com) - 2 year contract - expiration date 9/14/07	**0.00**	**0.00**	0.00	No Funding required for FY 05/06. Maintenance support paid through 9/14/07
VeriSign Inc.	Software Secure Site (hrms.browardschools.com) - 2 year contract - expiration date 10/6/07	**0.00**	**0.00**	0.00	No Funding required for FY 05/06. Maintenance support paid through 10/06/07
VeriSign Inc.	Software Secure Site (webcab.browardschools.com) - 2 year contract - expiration date 5/1/06	**0.00**	**0.00**	1,595.00	Current contract expires 51/06. Amount request for new contract due 5/
Web CT	On-line training system (SBBC Discontinued Use)	**5,775.00**	**0.00**	0.00	Contract Cancelled
Total		**5,377,294.51**	**5,382,704.18**	**6,241,691.01**	

ACTIVITY#: 72179

HARDWARE/SOFTWARE MAINTENANCE
PROJECTED BUDGET FY 05/06

ITEM DESCRIPTION	AGENDA ITEM FY 04/05	ACTUAL EXPENDITURE FY 04/05	APPROVED FY 05/06
SOFTWARE	5,377,294.51	5,382,704.18	6,241,691.01
HARDWARE	1,608,077.54	1,602,667.87	822,781.04
TOTALS	6,985,372.05	6,985,372.05	7,064,472.05
UNDER / (OVER) BUDGETED AMOUNT		0.00	(79,100.00)
AMOUNT TO BE TRANSFERRED FROM 9606 BUDGET (ED HINELINE)			79,100.00
NET UNDER / (OVER) BUDGETED AMOUNT			0.00

EDUCATION TECHNOLOGY SERVICES
FY 05/06 PROPOSED DISTRICT UTILITY BUDGET

	DESCRIPTION	UTILITY PROPOSED BUDGET 04 - 05	ENCUMBERED/ ACTUAL EXPENDITURES THRU 4/22/05	AVAILABLE BUDGET BALANCE	PROJECTED EXENDITURES 4/25/05 THROUGH 6/30/05	PROJECTED BUDGET REQUEST FY 05 / 06	COMMENTS
1	A T & T 800 Service	72,000	53,855	18,145	500	6,000	Cost for minutes of usage associated with callers using "800" type telephone
2	AT&T ISDN	4,000	10,290	-6,290	2,700	12,000	This line item is for the long distance charges associated with HRMS connection to SAP as it relates to system enhancements and onsite fixes. In addition to minimal distance learning video
3	AT&T Master Long Distance Use	10,669	5,828	4,841	4,841	10,000	Charges associated with long distance calls placed with AT&T from SBBC schools and administrative locations.
2	BellSouth - ATM	3,216,127	1,836,556	1,379,571	160,000	300,000	Cost associated with monthly T-1 Circuit Charge for Wide Area Network (WAN) connections to all schools and administrative sites. This charge is necessary, until the total conversion to Metro Ethernet is completed. Scheduled date for conversion completion
4	BellSouth - Data Individual	26,000	14,533	11,467	2,500	30,000	Cost associated with data lines install at administrative sites
5	BellSouth - DSL	0	12,105	-12,105	4,000	32,000	Provide internet services for teachers at home.
6	BellSouth Equipment Parts	25,000	69,264	-44,264	0	75,000	This item is for the purchase of miscellaneous equipment components required for a fully functional communications voice system. Also included are purchases of equipment for adds, moves, and changes to voice systems requested by district sites and schools via a communications work order.
7	BellSouth Internet Access	263,196	0	263,196	0	837,099	Cost associated with Internet Access giving an additional 500 Mbps in conjunction with FIRN 2 Internet Access at 55 Mbps.
8	BellSouth ISDN Lines	12,000	10,061	1,939	1,939	12,000	This line item is for ISDN line charges associated with distance learning video connections for schools, district sites that do not have PRI T-1 service
9	BellSouth - Metro Ethernet	0	947,198	-947,198	800,000	2,500,000	Upgrade from previous ATM Circuits which provides the circuits that connect all of the district to the WAN
10	BellSouth Yearly Service and PRIT-1	5,230,000	4,085,875	1,144,125	769,212	4,600,000	Cost associated with SBBC telephone service charges, PRI T-1 monthly charges, call usage, directory listings and assistance, and one time charges for new service additions. Currently, the PRI T-1 allocation for school sites are 2/3 per High School, 1-2 per Middle Schools and 1 per Elementary School
11	BIN (Broward Info Network)	4,000	3,103	897	562	3,600	Collaborative Venture to share information between SBBC, County Government and other large government entities within the metropolitan area via a frame-relay data circuit.
12	Cell Phones-CINGULAR* (Not Funded by the Budget Office)	0	0	0	0	0	**Cellular phones maintained by the District. All schools and departments using cellular phones would be charged via budget transfers at the rate of $30.00 per month. (This item is not funded by the budget office)**
13	City of Ft. Lauderdale Tower Rental	9,473	8,473	1,000	0	8,900	Cost for radio system equipment residing at Fort Lauderdale Police Department. This covers the SBBC information management system that integrates with the Broward County Radio System for SNNC's portion of network use.

EDUCATION TECHNOLOGY SERVICES
FY 05/06 PROPOSED DISTRICT UTILITY BUDGET

	DESCRIPTION	UTILITY PROPOSED BUDGET 04 - 05	ENCUMBERED/ ACTUAL EXPENDITURES THRU 4/22/05	AVAILABLE BUDGET BALANCE	PROJECTED EXENDITURES 4/25/05 THROUGH 6/30/05	PROJECTED BUDGET REQUEST FY 05 / 06	COMMENTS
14	Dedicated Technician/Voice Systems/Voice Video - **BellSouth** (Including Phone Maintenance ($807,760), and Equipment Maintenance ($422,250)	1,196,000	1,113,164	82,836	0	1,230,010	Yearly contracted technician services used for installation of new telephone systems and components, and additional equipment and parts to current voice system. This cost also covers maintenance on all voice equipment where original installation warranties have expired. (District requires 6 Voice Techs. @ $99,500 each, 1 Voice/Video Tech. @ $99,500, 1 System Administrator @ $95,000, Emergency Tech Service @ $16,260 and one year's equipment maintenance cost @ $422,250
15	Dedicated Technician/Wiring/PARTS (**QUALITY**) Tech. = $287,418.3 Parts = $75,000	337,418	336,514	904	0	362,418	Yearly contracted technician services used for installation of communications wiring and components for adds, moves, repairs, and changes on existing SBBC communications infrastructure. (District requires 3 Wiring Techs @ $95,806.10 each and $75,000
16	**Emergency Repairs or Service (Bell / Quali**	50,000	0	50,000	0	0	A fixed amount purchase order to cover all expenses incurred for emergency district equipment or component repairs that are not covered
17	FIRN	6,000	4,053	1,947	1,350	6,000	Cost to interface SBBC to the FIRN network with T-3 data line for Internet Service.
18	First American (Pay Phones at Schools) as Ja	48,000	32,400	15,600	0	36,000	Provide schools with coin telephone sets to continue to provide their students with a way to contact parents for after-hours pick-
19	MCI 800 Service	3,600	1,016	2,584	250	1,500	Cost is for minutes of usage associated with callers using "800" type telephone service to reach the SBBC WAN (data) network through the Board Member's LAN Rover located at KCW
20	Network Operations Center (Router Maintena	573,290	596,222	-22,932	0	630,000	The cost associated with the yearly maintenance for router equipment on the SBBC WAN. Units are installed at each school and department. Increase due to new contractural requirements
21	Radio Circuit **(Piper High)**	1,500	1,247	253	253	1,600	This item is for the audio circuit connecting from the Piper High School radio station to KCW for the purpose of broadcasting
22	Radio Circuit **(BECON)**	19,000	15,893	3,107	3,216	20,000	Cost to provide a video broadcast quality fiber optic T-1 circuit connecting BECON to the KCW Board Meeting room for broadcasting the Board Meetings on the BECON television
23	Sprint Call Out System	0	225,000	-225,000	15,000	240,000	Parent Link Solution - Provides the District an automated solution for cocntacting parents primarily for student absence notification and for automated information delivery to parents and the
24	Suncom - State of Florida Long Distance Serv	60,000	18,784	41,216	2,000	10,306	Charges for long distance calls placed on SUNCOM from the schools and departments
25	Synchronet - AS/400	36,000	32,466	3,534	6,101	40,000	Synchronet data lines that serve the centers and administrative sites integrated into WAN.
26	Synchronet Charter Schools	36,000	24,557	11,444	4,913	231,840	Provide Charter Schools with Synchronet Service. This provides these Charter Schools with the ability to access the student record data base via AS400.
27	Verizon Wireless	0	980	-980	500	3,000	Special antenna for Wireless PC connection
	GRAND TOTALS	**11,239,273**	**9,459,436**	**1,779,837**	**1,779,837**	**11,239,273**	

4.3

Specifically identify the district's allocation and/or utilization of Public School Technology Funding (PSTF). The information provided under this plan component should:

- Describe specific district initiatives, projects, or programs currently (or recently) supported with these funds; and
- Project how PSTF funding will be targeted over the plan period to help meet critical technology support needs of the district.

REVISED: 7/15/05

PUBLIC SCHOOL TECHNOLOGY FUNDS (PSTF)
ALLOCATION SUMMARY FY05-06

	REVENUE	ALLOCATION	TOTAL
GROSS PSTF ALLOTMENT FROM THE FLORIDA DOE FOR FY 2005-2006	5,000,000		
LESS: ALLOTMENT FOR MCKAY SCHOLARSHIP FUND		25,000	
NET PSTF ALLOTMENT FROM THE FLORIDA DOE FOR FY 2005-2006			4,975,000
TOTAL FTE (SBBS SCHOOLS) 256,174.04			
TOTAL FTE (26 CHARTER SCHOOLS) 20,231.62			
TOTAL FTE 276,378.66			
PLANNED DISTRIBUTION FOR CHARTER SCHOOLS (387,223 * 95%)		367,862	
BUDGET ALLOCATION FOR CHARTER SCHOOL RESERVE FUNDS (387,223 * 5%)		19,361	387,223
PLANNED DISTRIBUTION OF 05/06 FUNDS TO SBBC SCHOOLS (4,587,777 * 75%)			3,440,840
TOTAL AVAILABLE FOR SCHOOLS 05/06			3,828,063
PLANNED DISTRIBUTION OF 2005-06 FUNDS TO DISTRICT:			
SALARIES & FRINGE BENEFITS:			
LOCATION 9551 NORTH AREA		81,786	
LOCATION 9561 SOUTH CENTRAL AREA		98,054	
LOCATION 9571 SOUTH AREA		67,079	
LOCATION 9581 NORTH CENTRAL AREA		98,054	
LOCATION 9777 CUSTOMER STAFF DEVELOPMENT SERVICES (CSDS)		346,184	
LOCATION 9858 EDUCATION TECHNOLOGY SERVICES (ETS)		68,528	
TOTAL SALARIES & FRINGE ALLOCATION			759,685
USE 0 - DISTRICT TECHNOLOGY:			
LOCATION 9858 OBJECT 100		35,538	
LOCATION 9858 OBJECT 300		20,000	
LOCATION 9858 OBJECT 600		20,000	
LOCATION 9858 OBJECT 700		60,000	
TOTAL USE 0 ALLOCATION - LOCATION 9858 - ETS (35%)			135,538
LOCATION 9777 OBJECT 100		51,714	
LOCATION 9777 OBJECT 300		135,500	
LOCATION 9777 OBJECT 500		21,000	
LOCATION 9777 OBJECT 600		28,500	
LOCATION 9777 OBJECT 700		15,000	
TOTAL USE 0 ALLOCATION - LOCATION 9777 - ETS (65%)			251,714
TOTAL FUNDS ALLOCATED FOR DISTRICT PROJECTS			1,146,937
TOTAL ALLOCATIONS			4,975,000

Section V -- Technology Acquisition Plan

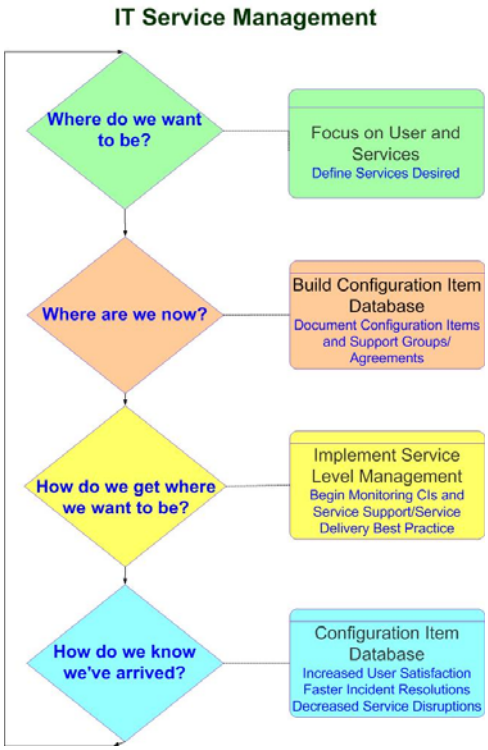
5.1

Identification of appropriate technologies to meet the goals of the district instructional program as identified by the needs assessment procedures.

1. Introduction/Background

Service-level agreements (SLAs) are contracts between a service provider and its customers that define the IT services used by the customers, the means of measuring the effectiveness of the delivery of these services, acceptable and unacceptable service levels, and actions to be taken when service levels fall below agreed minimum levels. Service-level management (SLM) is the way SLAs are monitored and met.

The most common problem with the design and implementation of IT services is a mis-alignment between IT and the requirements of the end users. Service level management is a framework for IT management that aligns IT with school district needs and priorities. Information Technology Service Level Management (SLM) is built upon the IT Infrastructure Library (ITIL), one of the most powerful and widely accepted collections of IT best practices. A Service Level Agreement, or SLA, is fundamental to service level management. The SLA creates an agreement between IT and the end users that defines and documents the relationship between them. The goal of SLM is the success of the end user. Presently, ETS aligns its daily operational procedures with the School Board's 2000-2005 Strategic Plan – Goal 3 – Objective 7. SLM incorporate a continuous improvement process into operations that is consistent with the district's goals. Additionally, the CELT Information Technology Assessment Report issued recommendation 3.5.1 stating "Implement a service level management framework to build enhanced customer service and a continuous improvement plan within information technology."



2. Overview

2.1. Project Summary

The first step to implementing SLM is the definition of services used by the customers of IT. The definition includes the careful articulation of the school district's critical functions and objectives- the successful achievement of which are enabled by IT service delivery. Most SLAs are developed after first baselining existing services against vital business functions. An SLA is intended to be an objective tool that helps IT service providers define benefits versus cost tradeoffs and deliver services that provide the end users with type, amount and speed of service required to enable their successful achievement of school district objectives.

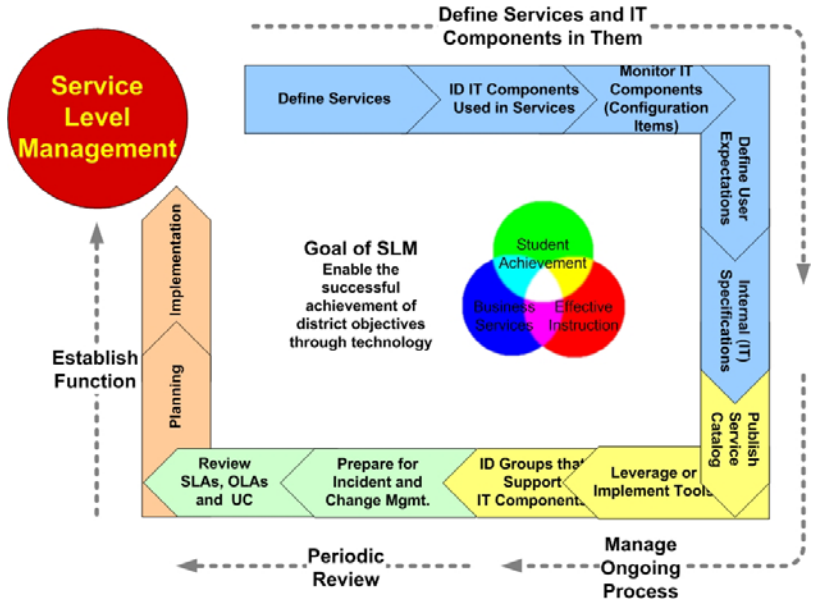
Therefore the first phase of this initiative is to build a framework for service level measurement that encompasses tools, process, and people:

- Tools – Service monitoring software and "probes" will be installed to proactively measure and dynamically report service availability and response times.
- Process – Management of service levels will follow a continuous improvement model and will be driven by data.
- People – A customer-focused, service-oriented culture will permeate the IT organization as the value of IT services rises in the district.

The elegance and complexity of implementing SLM requires patience and persistence. Full SLM implementation will be phased in over three years. However, the benefits will also be phased with some benefits occurring in the first phase of implementation.

2.2. Vision

Upon completion of this initiative, the culture of the ETS organization will shift from managing IT assets to managing IT services. The Service Level Management graphic below illustrates an implementation strategy via a continuous improvement cycle that aligns with the Sterling Plan-Do-Study-Act process. ETS actions will be prioritized to enable delivery of the services that provide the most value to the district. The dynamic publication of the ***IT Service Catalog*** will have the effect of defining IT support for published services thus institutionalizing a framework for new technology projects. Interacting with Project Management guidelines, new projects will have to request an addition to the IT Service Catalog which will trigger *change management* and assess the system-wide impact. This protects both IT and the end user from surprises and frustration growing out of trying to support unknown elements of the technology system.



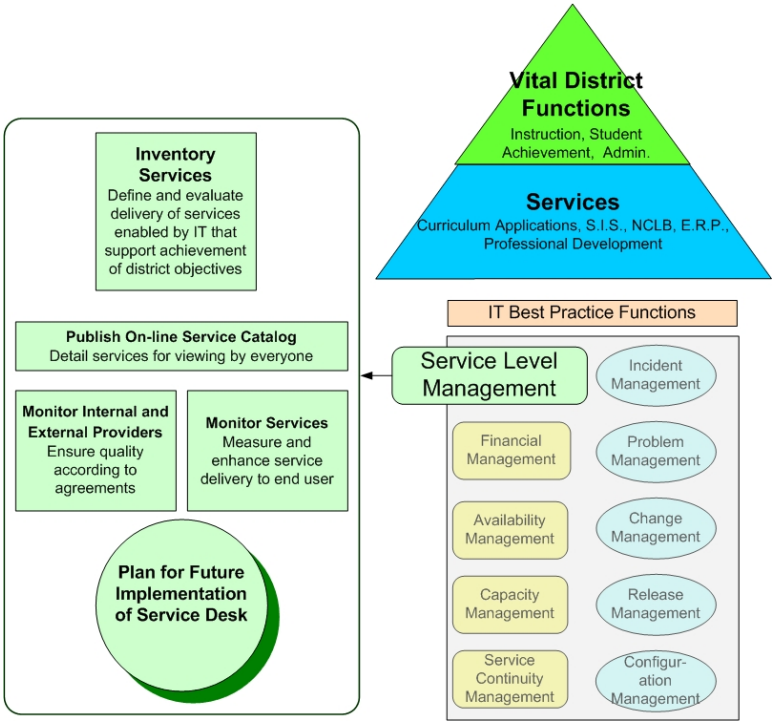
Projects and funding will be driven by data and will be aligned with school district objectives. A consolidated *service desk* will handle management for IT assets, problems, incidents, changes, work orders, services, and service level agreements (SLAs). This will allow operational staff to proactively focus on *strategic objectives* such as capacity planning and security. Service performance data will be dynamically published on a web-enabled interface so every school and department can track their IT services and appreciate the value of IT services to accomplishing their business objectives. Overall, the customer satisfaction with IT services will improve as a result of service-driven best practices, and ETS morale will increase as a result of clear expectations and achievable accomplishments.

2.3. Organizational Objective

ETS-SLM will produce results that strongly align with the School Board's Strategic Plan – Goal 3 – Objective 7. This management system helps provide the data to communicate effectively with our customers, as well as supports the Sterling Process - Plan, Do, Study, Act.

3. Implementation Strategy

The full implementation of a Service Management framework will be phased in over three years and will include comprehensive IT staff development. The framework will align with the *IT Blueprint* and will incorporate all Blueprint re-engineered processes as shown in the graphic. These processes encompass "IT Best Practice Functions" including Service Support functions shown in the blue circles and Service Delivery functions shown in the yellow boxes.



The implementation strategy proposed will consist of an ETS Team working in conjunction with JDL. Phase one efforts will develop an SLA model and implement monitoring tools for five business critical applications:

- TERMS
- MSA
- COMPASS
- HRMS
- Internal Web Services

Since JDL is the outsourced vendor for the district's Network Operations Center (NOC), it currently monitors over 2,000 network assets (eg. routers, switches, servers). JDL's role in phase one will include re-purposing this information, as well as adding additional probes, to publish a web-enabled "IT Services Report" for every school to review.

ETS and JDL will also begin the development of the online IT Service Catalog with the five business critical applications. The Service Catalog will map all of the IT systems that support the delivery of the service. Additionally, JDL will install and configure the tools to monitor and report on service level objectives that provide the metrics for the SLA.

Cataloging each service, the components that work together to make the service possible, and the performance requirements for those IT services will achieve five outcomes:

- Establish the value of IT by building an inventory of services IT delivers in support of vital district functions.
- Produce an online inventory of all IT components involved in the delivery of each service and define the performance guidelines for each component.

- Assure support of each service by creating or updating Underpinning Contracts (UC) for defining vendor roles and responsibilities. Create or update Operational Level Agreements (OLA) describing the roles and responsibilities of the district IT department for supporting services.
- Create an SLA template for service delivery to establish the standard of service delivery and accountability for achieving the standard.
- Begin proactive monitoring of IT components that deliver specific services in order to report service disruption and not just device availability only.

Phase Two will complete the IT Services Catalog. Once an inventory of services has been completed, and the Service Catalog has been produced, a process of monitoring and improvement can begin. In fact, there is a parallel between the effort to improve delivery of IT supported services and other efforts at accountability in the K-12 enterprise. The best practice concept of Continuous Improvement for IT matches the mandate for improvement in student achievement in the No Child Left Behind legislation. The objective of NCLB is to measure student achievement against the district and state objectives and show improvement from year to year. The same objective is applied to IT. IT Best Practice recommends following a continuous improvement process such as shown in the diagram.[1]

Phase Three through Five assumes that the Service Level Management initiative is incorporated into the IT Blueprint. Full implementation of SLM will require the proper organization and staffing, as well as professional development. Focusing on the IT end user is not as easy to do as to say. Managing IT components is complex and the end users in education are diverse in their technology experience. A fundamental change from monitoring IT resources to monitoring the experience of the end-user (services) demands accountability and project control. However, an end user focus will improve the value of IT to the K-12 enterprise by helping each technology user achieve district objectives for their role and responsibility. For the teacher – more effective instruction. For the student – greater student achievement. For district administration – more effective and efficient support services.

[1] Office of Government Commerce, ITIL: The Key to Managing IT Services, Best Practice for Service Delivery, London: The Stationery Office, page 18.

3.1. Summary of Benefits

Service Level Management is recognized as an IT best practice. Based on research the following are expected benefits based on the return of investment (ROI).

Targeted Benefits	***Measures***	***Date for Achievement***
To the school district: •District goals and objectives for instruction, administration and business services are clear and mutually understood by everyone. •IT focuses on defining and delivering specific services to enable achievement of district and school goals including individual student achievement objectives thus enabling the success of every end user. •The end user experience with technology is enhanced resulting in more confidence in, and use of, the technology.	▪ *Gains in employee productivity* ▪ *Increased System availability* ▪ *Increased System reliability* ▪ *Customer Satisfaction* ▪ *Alignment of IT Services with district strategic goals*	*June 2007*
To the IT department: •Organized to deliver and support services rather than to implement and support technology giving more purpose and focus to IT as a vital member of the K-12 enterprise. •Improved visibility and reputation of IT as it becomes a "value" in the minds of the end users who consume services enabled by IT. •Cost-justified IT Infrastructure and IT services against the district's goals enhances IT's value and positions IT as an enabler of district success. •Improved job satisfaction for IT staff.	▪ *Reduction in cost for service and support* ▪ *Increased productivity of IT staff because of a focus on services to end users.* ▪ *Change management controls* ▪ *Improved Employee morale*	*June 2007*

THE FOLLOWING PAGES OF THIS PDF CORRESPOND TO INFORMATION POSTED ON THE SBBC SLA WEBSITE...

IT Service Catalog
- Executive Overview
- Scope

District Network Status

Individual School Network Status

Service Management Overview

Business & IT Service Mapping

Executive Overview

The Service Catalog is one component of Service Level Management. Service Level Management is a process of documenting services, agreeing to levels of delivery of those services and monitoring actual service levels achieved. The first step in applying Service Level Management best practice in the school system is to describe services supported by IT. The Service Catalog is the document where this is done.

The Service Catalog for IT services in Broward is provided online. It defines the customer services provided to end users such as electronic mail, Internet access along with a variety of applications that support curriculum and business.

Service Level Management Functions	Service Level Management Procedures
1. Documenting Services 2. Agreeing to Levels of Delivery 3. Monitoring Actual Service Levels Achieved 4. Ensure Service is aligned with District goals and objectives	1. Service Catalog 2. Service Level Agreements 3. System Status Monitoring Tools 4. Complete service to business mapping

Sample Components of Each Service Management Function

Each function of Service Management provides information and processes useful to its goal of enabling the success of the enterprise. The graphic summarizes some of the components of the three key processes in Service Management.

Components of Service Management

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IT Service Catalog
Executive Overview
Scope
District Network Status
Individual School Network Status
Service Management Overview
Business & IT Service Mapping

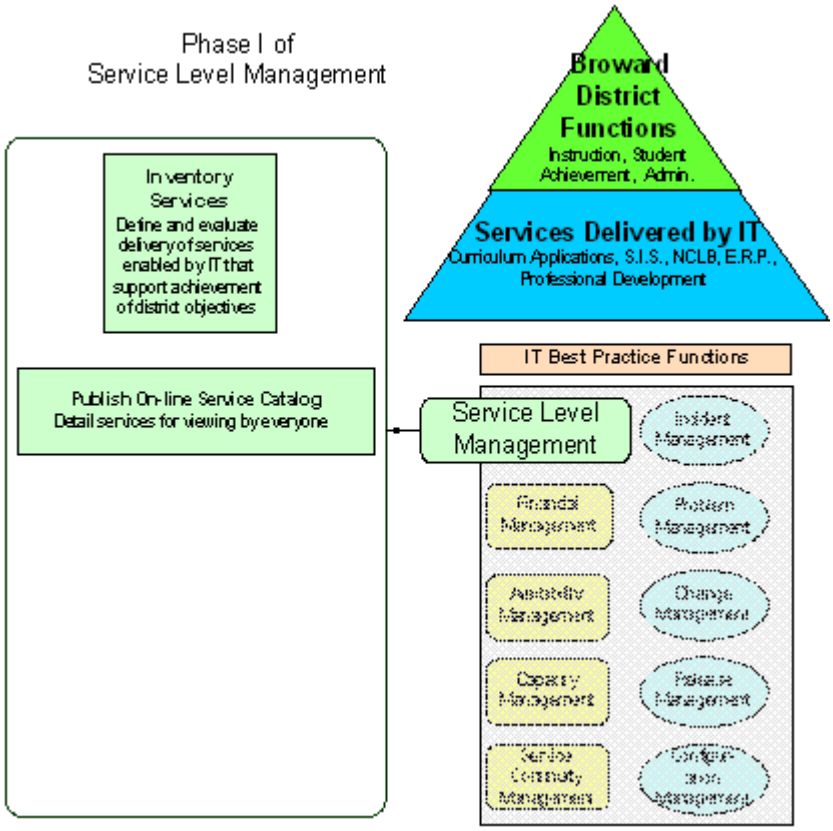
Scope

Introduction

A Service Catalog is not the only component of Service Management. There are linkages between the Service Catalog and other areas of Service Management. These linkages are depicted in the graphic.

The objective of Service Level Management is to lead IT organizations through the design of a Service Catalog, development of detailed service descriptions, and the development of Service Level Agreements (SLA) for major, mission-critical services that are well defined, measurable, and in a negotiable state.

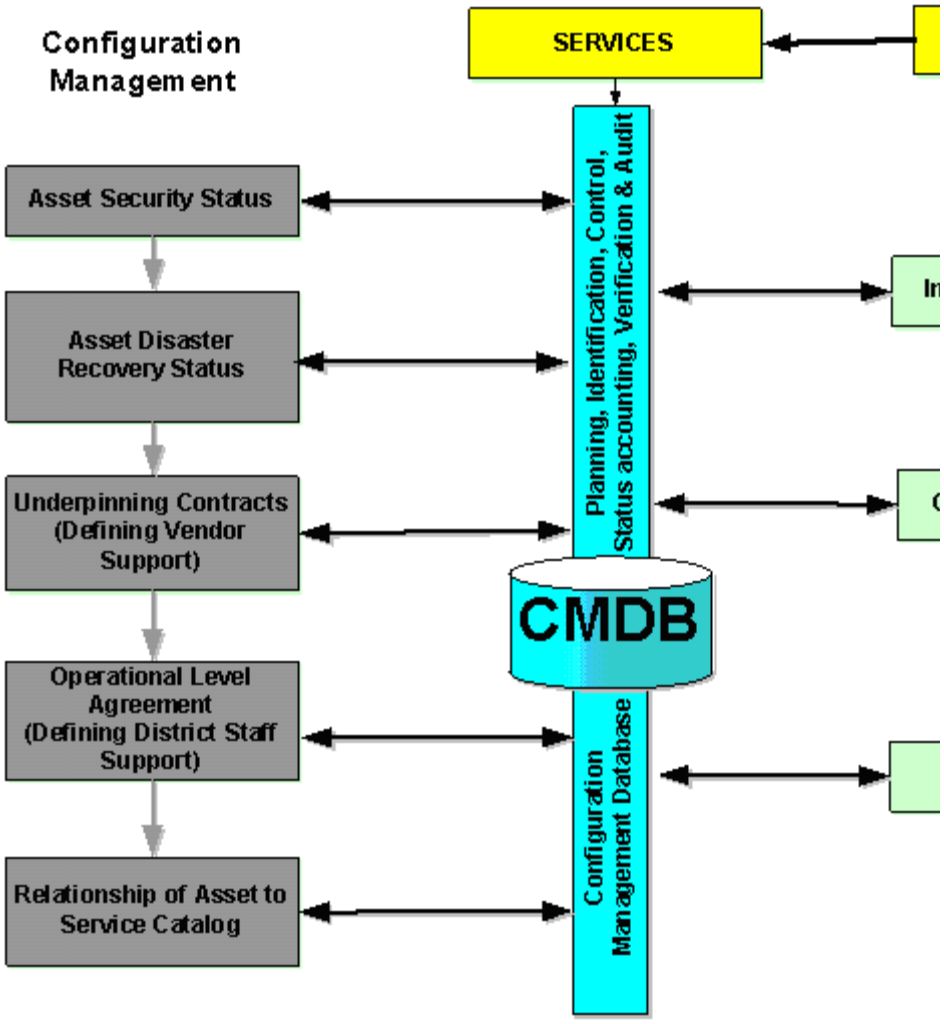
The Service Catalog identifies and qualifies the types of services being provided so other components of Service Management can be integrated.



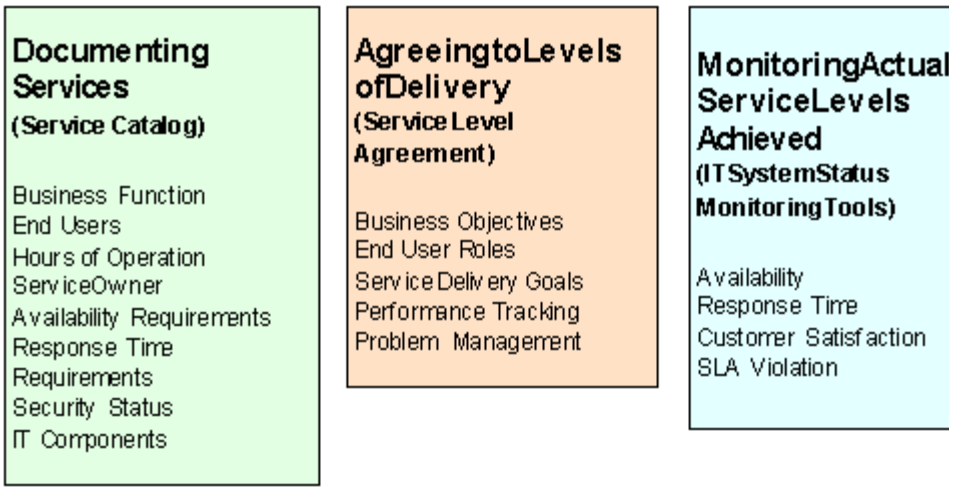
Scope and Description

The objective of this Service Catalog is to support ETS through the implementation of Service Management including Service Level Agreements (SLAs) for specific major IT services. This Service Catalog will define the services, describe how service delivery will be measured and how the level of service delivery will be negotiated with end users.

Each service listed in the service catalog will be keyed to the Configuration Management Database that will house all of the assets such as servers, routers and support groups that go into the delivery of the service. The Configuration Management Database will be used by Service Desk to track Incident, Problem and change management for each item. Additional security and disaster recovery plan will also be keyed to critical CMDB assets.



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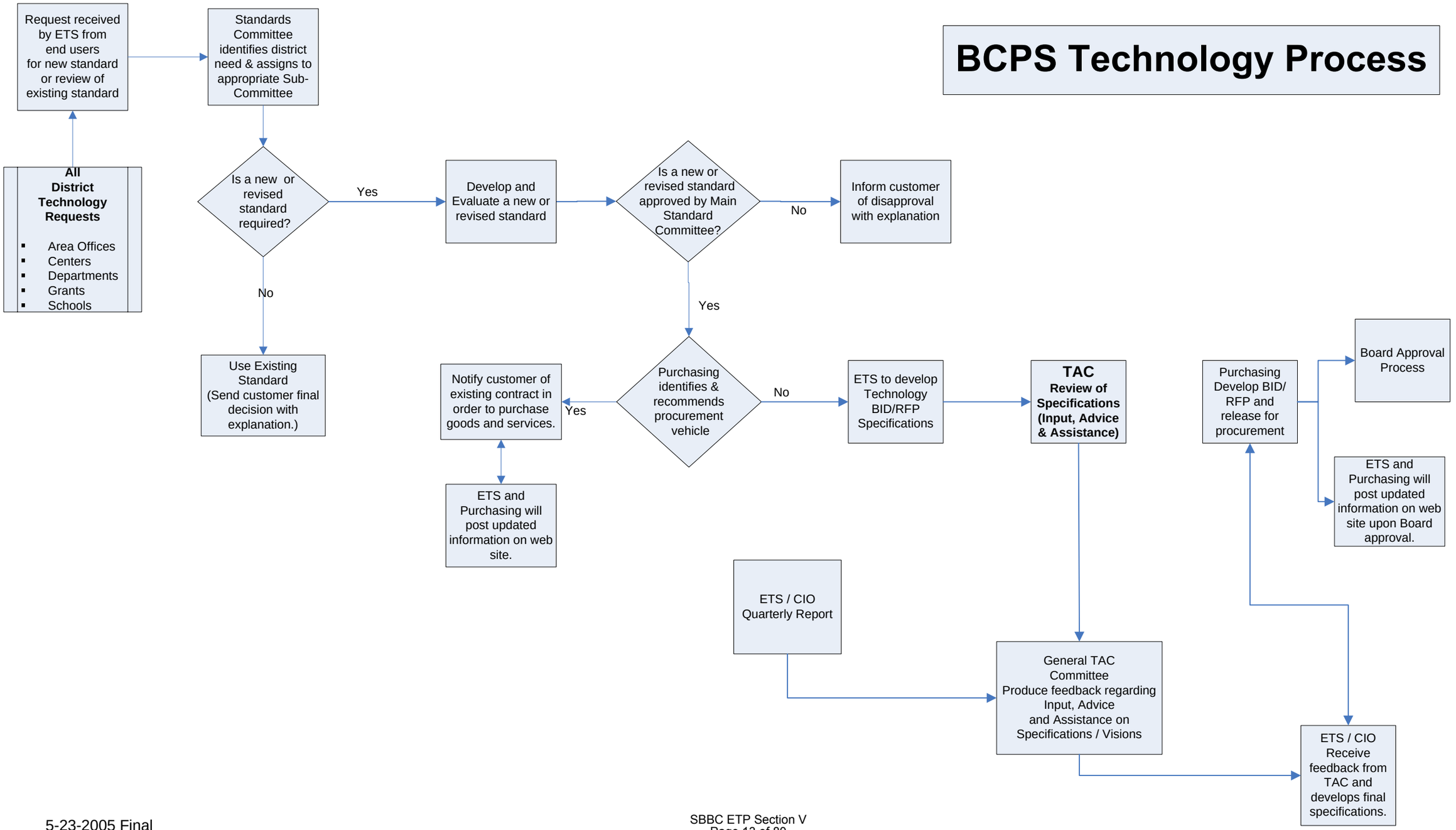


The Service Catalog documents, and forms the basis for an understanding of, all the services offered by describing the following:

- The vital business (district) functions to be achieved by the service
- Goals to be achieved by use of the service
- A definition of the service to guide expectations and service delivery
- The hours the service is required
- The response time expected by the end users of the service for optimum use
- The levels of security required to assure service availability
- All of the IT components that work together to deliver the service Elements of to the CMDB
- Measures of component performance

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BCPS Technology Process



5.2
District plans to acquire software and technology-based educational materials which are usable by students with the widest range of abilities to deliver technology-based instructional programs in support of the Sunshine State Standards

3.1.2 Selection and Acquisition Guidelines

BCPS seeks to develop standards, selection criteria, acquisition guidelines, and implementation/integration strategies for software applications for both the Windows and Macintosh operating systems in the following categories:

- learning systems with management components including ILS, portals, and Riverdeep-type applications
- productivity tools including word processing, spreadsheet, database, notetaking, (Notebook/Notetaker-pc, OneNote-mac),concept mapping (Kidspiration/Inspiration)
- production applications including web design, presentation, desktop publishing, video production (iMovie), graphic design/imaging, photography (iPhoto), CAD/CAM drafting/design
- communications applications including browsers and e-mail (FirstClass)
- keyboard application for grades prek-8 and adult learners
- data manipulation applications
- content specific curriculum software programs
- test preparatory applications (FCAT Explorer)
- Web-based Resources including subscription services, online teacher resources
- online learning communities (Blackboard)

Software selection criteria/factors:[7]

- quality of assessment component and capacity to export this data
- quality of curriculum content and alignment with Florida Sunshine Standards

[7] "Profile Series: 3 Case Studies." Technology & Learning Vol.24, No.4 (November 2004): 46.

- depth and breadth of content (applicability for remedial and advanced learners)
- scientifically based research foundation of application
- ease of use
- online access
- technical requirements (computer, peripherals, bandwidth)

To assist BCPS leadership with the identification, review, and purchase of instructional digital content, the following steps are recommended at the district level:

- identify and select developmentally appropriate applications for grades preK-12 that align with the Florida Sunshine Standards while supporting and enhancing the current productivity application
- research, review, and analyze best-practice strategies and accompanying applications
- determine which digital, instructional resources, beyond the productivity suite, are desired by most BCPS schools (differentiated by primary, elementary, middle, high school, and adult audiences)
- formulate guidelines and processes for individual schools to investigate and implement alternative software solutions for specific audiences/needs/learning groups
- coordinate vendor demonstrations of instructional technology applications at convenient sites throughout the district
- negotiate high volume purchasing agreements (district/school site-licenses, lab pack discounts, and multi-user subscriptions) with those vendors who distribute desired learning resources
- develop dissemination strategies for making teachers aware of these resources and their intended use
- distribute procedures for securing applications/subscriptions at these prices to all schools
- disseminate to all schools links of free digital content available on the World Wide Web that aligns with district curriculum standards

Software purchasing strategies will take into consideration volume purchasing, district, and network licensing to maximize the audiences with access to these learning resources. These efficiencies are discussed further in section XIV. *Budget, Funding, and Cost Savings*.

It is critical that communication and dissemination channels be developed to distribute selection criteria and acquisition guidelines widely to all

audiences currently purchasing instructional applications, including PTSAs and SIP teams. The proposed CD/IM application will contain a Web-based collection of resources currently available to BCPS educators, thus decreasing the redundant purchase of applications and/or purchases already owned by the district. The district will continue to offer pre-school technology support for parents via the district Web site.

BCPS also seeks to develop standards, selection criteria, and integration guidelines for free resources available on the World Wide Web including, but not limited to:

- museum, government, education, and historical sites
- online learner productivity utilities
- student research portals and tools
- Webquests and Web scavenger hunts
- Webcam sites
- online learning communities
- online tutors
- student activities and templates

An expanded list of free Web-based resources can be found in the following section.

3.1.3 Web-based Resources

Instructional content in the classroom is no longer limited to textbooks, stand-alone software applications, and manipulatives. District-wide networks with broad bandwidth access to the World Wide Web have placed a wealth of digital instructional content at the fingertips of any teacher or student who knows how and where to access it.

These resources include the following:

- free education services, such as AOL@Schools, Microsoft and Apple education Web sites, that provide students with online learning resources, activities and templates, and teachers with lesson and unit plans that support state and national curriculum standards
- Web-based reference services for students, such as KidsConnect, Educator's Reference Desk, and Mad Scientist Network
- links to public, university, and government library collections
- primary source information through access to experts across the globe in various professions and areas of expertise

- access to vast collections of still pictures and motion videos, animations, and digital presentations on diverse subjects
- virtual tours of museums and historical sites around the globe such as the Smithsonian, Louvre, National Gallery of Art, and Colonial Williamsburg
- live "Webcams" throughout the world that permit students to view the activity within the canopy of a rainforest, the world of a panda bear, or corn growing in our nation's heartland
- online courses via distance learning services, businesses (e.g., Barnes & Nobles), and colleges/universities (many are offered for free while others include a subscription or enrollment fee)
- online learner productivity utilities including surveys, citation generators, and plagiarism checkers
- student research portals and tools including search engines
- Webquests and Web scavenger hunts are available for nearly every content area for all instructional levels
- online learning communities, such as Tapped In at http://www.ti2.sri.com
- online tutors, such as Think.com
- geo caching sites and other Web-based virtual and real treasure hunts

5.3
Timetable for acquisition of grade-appropriate, up-to-date technologies in sufficient quantities to accommodate student and staff needs for instruction and assessment.

Acquisition Plan: Technology Refresh Program

The technology refresh leasing plan moves the District toward a more efficient model of procuring technology and disposing of outdated systems. It will also ensure that the District's computer and printer install-base remains current, establishing a four-year technology life cycle. A leasing plan extends the standardization of computers bringing the vast majority of equipment to a more equitable, fully functional, easily manageable environment. It will position the district to more effectively track, monitor and maintain its technology "fleet." These efforts are structured to lower the total cost of operating the District's end-user technology equipment by eliminating the high-cost District support of post warranty, end of life equipment.

This leasing plan also gives District and site-based technology support staff tools that improve the effectiveness of repair and maintenance activities. Further, the delivery of professional development courses is included as part of the program to complement the training that is already taking place throughout the District.

The lease program is based on a move to an acquisition model with four annual lease payments from our current hardware vendors. The lease proposals that underpin the program include student end user equipment (laptops and printers), set up and installation of equipment, technical support services, maintenance of equipment, staff development, project management, removal and disposal of obsolete equipment, asset tagging, and requested software bundles with continuous updates.

The number of devices proposed for replacement in the refresh plan is based on the current district inventory of school based equipment that is five or more years old and out of warranty. The laptops will be distributed to schools based on student population, current inventory, and site readiness to integrate technology into the curriculum. Printers will be distributed based on inventory and need. A site-based assessment will be conducted for inventory and program needs prior to installation. The distribution priorities will be identified through the Area Offices and the Curriculum and Instruction/Student Support Department.

Student Technology Refresh Proposal
Executive Summary

This technology refresh plan moves the District toward a more efficient model of procuring technology and disposing of outdated systems. It will also ensure that the District's computer and printer install-base remains current, establishing a four-year technology life cycle. The refresh plan extends the standardization of computers bringing the vast majority of equipment to a more equitable, fully functional, easily manageable environment. It will position the district to more effectively track, monitor and maintain its technology "fleet." These efforts are structured to lower the total cost of operating the District's end-user technology equipment.

This strategy focuses on upgrading classroom technologies with student laptops. This strategy will enable the District to move towards its vision of enhancing its teaching environment, and integrating the use of technology into the students' learning activities. The focus on deployment of mobile computing on our campuses is designed to engage students more effectively, and address the limitations on physical classroom space previously available for collaborative and computer lab activities due to Florida's Class Size Reduction.

This plan also gives District and site-based technology support staff tools that improve the effectiveness of repair and maintenance activities. Further, the delivery of professional development courses is included as part of the refresh program to complement the training that is already taking place throughout the District.

The refresh program is based on a move to a lease acquisition model with four annual lease payments from our current hardware vendors. The lease proposals that underpin the program include student end user equipment (laptops and printers), set up and installation of equipment, technical support services, maintenance of equipment, staff development, project management, removal and disposal of obsolete equipment, asset tagging, and requested software bundles with continuous updates. The following chart identifies the annual cost per vendor based on a complete solution for the District technology refresh.

Hardware Vendor	Annual Cost	Number of Devices Included in Proposal
Apple Computer	$11,610,000	30,000 laptops
Dell	$3,925,000	10,128 laptops
Lexmark	$1,497,500	5,000 printers

Note: The allocation of devices is based on total projected devices prorated by the FTE count based on school category (Elementary, Middle, High, Center). Allocation to individual schools is based on FTE count for each school.

The number of devices proposed for replacement in the refresh plan is based on the current district inventory of school based equipment that is five or more years old and out of warranty.

The laptops will be distributed to schools based on student population, current inventory, and site readiness to integrate technology into the curriculum. Printers will be distributed based on inventory and need. A site-based assessment will be conducted for inventory and program needs prior to installation. The distribution priorities will be identified through the Area Offices and the Curriculum and Instruction/Student Support Department.

Apple Student Technology Refresh
Exhibit A

Refresh Proposal
Broward County Public Schools
The Road to the Digital School
4-May-05

Solution Summary
iBooks to replace obselete classroom workstations, teacher and student laptops
30,000 iBooks (12.1" 1.2GHz/512MB/30GB/Combo/Airport Extreme)
Each iBook includes the following:
Imaging
Setup and Installation
4 yr Broward Custom AppleCare
iWork '05 VLA 1000+ seats
Mac OS X Maintenance 48 Mths 1000+ seats
iLife Maintenance 48 Mths 1000+ seats
iWork '05 Maintenance 48 Months 1000+ seats
Mobile carts for every 20 iBooks
1,500 Bretford 32 Slot Laptop Storage Carts
Staff Development
Apple Professional Development Online, 4 year subscription for 10,000 teachers
300 additional Apple Professional Development days
Full Time Person Senior APD Consultant, 1.5 years
Full Time Person APD Consultant, 1.5 years
Xserve for each site and District based Server Support
4 yrs Premium Alliance Support (OS X Server Software)
200 Medium Demand Servers
250 Unlimited Client Apple Remote Desktop
Project Management and additional services
200 Hours Project Management Services
8 Tech Support People, 4 years
1 Java/Web Developer Person, 2 years
Third Party Services - Disposal TMG
Total Workstations/laptops to be replaced **30,000**

Total Solution Price **$46,440,000.00**

4 Year O% Municipal Lease payment per year ***$11,610,000.00***

Dell Student Technology Refresh Exhibit A
Refresh Proposal
June 15, 2005

Laptops to Replace obsolete classroom workstations

Quantity 10,128 Latitude D510 laptop computers
Pentium M (1.6 GHz) processor
14.1" XGA screen
512 MB memory
40GB hard drive
Internal modem and wireless
24X CDRW/DVD

Each Includes:
Imaging
Setup, installation & trash removal per the current bid
4 years on-site warranty
Windows XP Professional and Office 2003
Asset tagging

Wireless Carts
One 32 unit wireless cart for every 20 laptops purchased

Staff Development
Dell on-site consultant for 1 day/month for 4 years to work with district staff
3 day "Train the Trainer" institute to train staff on use of laptops, wireless labs, and curriculum integration
Online courses on curriculum, curricular tools, and productivity training
Onsite Hardware Maintenance Training and online self study material for hardware maintenance

Project Management and any additional services
Dell Project Manager to plan, coordinate and support the refresh for 4 years
Dell Service Account Manager for service reporting and escalation management
Local project management from C&C International

Asset Recovery Services
20,256 pieces of equipment (CPU and monitor count as two; laptops as one)
Other electronic equipment may also be recovered, like an old printer
Recovery includes proper cleansing and disposal of equipment, per EPA guidelines

Total Solution Price $15,698,604

4 year 0% lease payment per year $3,924,651

EXHIBIT A
Lexmark International, Inc.
Lexmark Student Technology Refresh

Components of our Solution:

• Lexmark T640N Monochrome Laser Printer or equivalent configuration (35ppm laser printer)	
• 1 additional (21,000 page) high yield toner cartridge per print device	
• Project Management for the term of the project	
• Asset tracking and reporting (Distributed Fleet Management Services)	
• Web Portal Access	
• Dedicated Engineer Support – Total of 3 engineers supporting the district for the term of the contract	
• Additionally, 245 of our print devices will be upgraded to Multifunction Printers	
• Installation of new print devices/De-installation of current print devices that are currently in place. This process will be completed by December 2005.	
• After installation Lexmark will train users on location on how to maximize the utilization of our new print devices	
• Warranty coverage for the term of the lease (4 Years)	
• On going help desk training / TLC Training	
• Prosys and MTG (Lexmark Partners) will continue to as providers of installation, de-installation, initial training and maintaince services.	
** Quantity of Replacement Devices	**5,000 Units**
** Total Cost	**$5,990,000.00**
** Lease Payment Per Year (4 years min)	**$1,497,500.00**

5.4
Appropriate technology acquisition policies or procedures that address the following areas:

- Consistency and interoperability with existing and planned technology delivery system;
- Upward migration to emerging technology standards; and
- Support and maintenance requirements.

PURCHASING POLICIES

THERE IS A SEPARATE POLICY FOR BUILDING RENTALS OR LEASES (SEE POLICY 2314) AND FOR USE OF CONSULTANTS (SEE POLICY 6302).

AUTHORITY: F. S. 1001.41, F. S. 287.057(23(a)
STATE BOARD OF EDUCATION ADMINISTRATIVE RULES, CHAPTER #6A-1
POLICY ADOPTED: 11/13/69
POLICY AMENDED: 9/5/74; 7/29/76 ; 1/18/79; 1/22/81;
2/7/85; 10/1/87; 10/3/89; 5/4/93; 9/7/93; 8/18/98; 12/12/00, 8/5/03; 1/20/04

RULES

PART I. PURCHASING POLICIES - *GENERAL PROVISIONS*
PART II. PURCHASING POLICIES - *FACILITIES AND CONSTRUCTION MANAGEMENT DIVISION*
PART III. PURCHASING POLICIES - *FOOD AND NUTRITION SERVICES*
PART IV. PURCHASING POLICIES - *RISK MANAGEMENT AND BENEFITS DEPARTMENTS*
PART V. PURCHASING POLICIES - *TECHNOLOGY*
PART VI. PURCHASING POLICIES - *PROTESTS ARISING FROM THE CONTRACT BIDDING PROCESS*
PART VII. PURCHASING POLICIES - *FIELD TRIPS*

I. PURCHASING POLICIES - *GENERAL PROVISIONS*

a. Purchases under $5,000 that are not available from a contract awarded or approved for use by the School Board do not require quotations or solicitations. A Requisition shall be utilized for purchases of goods or services included in a contract awarded or approved for use by the School Board and for any expenditure approved by an Agenda Item. When necessary, a confirming Purchase Order shall only be placed with a vendor by the Purchasing Department after receiving an approved Requisition. Minority/Women's Business Enterprise (M/WBE) vendor participation will be strongly encouraged in this category of purchases.

b. Purchases from $5,000 to less than the amount established herein which requires written solicitations that are not available from a contract awarded or approved for use by the School Board requires a minimum of three written quotations, unless an exemption to this requirement is established herein. A Requisition shall be utilized for purchases of goods or services included in a contract awarded or approved for use by the School Board and for any expenditure approved by an Agenda Item. At least three suppliers shall be contacted for written quotations. At least two certified Minority/Women's Business Enterprise (M/WBE) vendors will be contacted where certified M/WBE vendors have been identified by the School Board as offering the product or service being purchased. The award will be based on the lowest and best quotation obtained. When necessary, a confirming Purchase Order shall only be placed with the vendor by the Purchasing Department after receiving an approved Requisition. The Superintendent, or designee, may waive the quotations requirement under this section.

c. Purchases in the amount established herein which requires written solicitations shall be by Requisition to the Purchasing Department where the Purchasing Department will release a written solicitation for the purchase being requested, unless an exemption is established herein. A Requisition shall be submitted for purchases of goods or services against a contract awarded or approved for use by the School Board, and for any expenditure approved by an Agenda Item. When necessary, a confirming Purchase Order shall only be placed with the vendor by the Purchasing Department after receiving an approved Requisition.

d. Purchases in excess of $150,000 require prior School Board approval unless otherwise established herein. The Superintendent shall furnish the School Board a list monthly of all awards which do not require prior School Board approval.

e. Check Request or Procurement Card (P-card) may be used when a Purchase Order is not required or for items exempt from bidding as designated herein or by the Superintendent or State Board Rules.

PURCHASING POLICIES

I. PURCHASING POLICIES - *GENERAL PROVISIONS* (continued)

f. Whenever possible, like purchases should be combined and bid by the Purchasing Department. Multiple orders or split invoicing shall not be used to circumvent the rules established herein.

g. If an item to be purchased is the same as or is similar to one stocked in the School Board's warehouse, the item from the warehouse must be purchased. If an item or service to be purchased is the same or of a similar nature as an item currently on contract, the item on contract must be purchased from the approved vendor. Any deviation from this procedure must be fully justified and documented by the principal or department head as to the reason for the exception, pre-approved by the Superintendent, and the documentation must be maintained for audit purposes. This Rule applies to purchases made through all funds, including internal funds.

h. The Superintendent may authorize the bidding and purchase of any commodity or service if it is determined that an emergency exists and that the delay caused by waiting for prior Board approval would be detrimental to the interests of the school system. The Superintendent may determine, in writing, that an immediate danger to the public health, safety, or welfare of students and staff or other substantial loss to the district requires emergency action. After the Superintendent makes such a written determination, the district may proceed with the procurement of commodities or contractual services necessitated by the immediate danger. However, such emergency procurement shall be made by obtaining quotations from at least two prospective vendors (as available), The Superintendent determines that the time required to obtain quotations will increase the immediate danger to the public health, safety, or welfare of students and staff or other substantial loss. In this case, prices will only be required from one vendor. At the next School Board meeting subsequent to the event, the purchase shall be submitted to the School Board for post approval.

i. The requirement for requesting solicitations or prior School Board approval is hereby waived as authorized by Chapter 6A-1.012, State Board of Education Administrative Rules, for the purchase of professional or educational services, educational tests, textbooks, printed instructional materials, computer software, films, filmstrips, video tapes, disc or tape recordings, or similar audio-visual materials, and for library and reference books, and printed library cards where such materials are purchased directly from the producer or publisher, the owner of the copyright, an exclusive agent within the state, a governmental agency or a recognized educational institution. The requirement for requesting solicitations or prior School Board approval is hereby waived for instructional materials purchased from state-authorized book depository or for instructional materials purchased for resale to students. The Superintendent will furnish the School Board a list monthly of all purchases under this category that exceed $150,000.

j. Copyrighted materials purchased for resale to students are exempt from Board approval and bidding requirements.

k. The Superintendent or designee may be authorized to purchase products or services or to enter into temporary employment contracts where the total amount does not exceed an amount prescribed by the School Board, and does not exceed the applicable appropriation in the district budget. No person, unless authorized to do so under Rules of the School Board, may make any purchase or enter into any contract involving the use of school funds; no expenditures for any such unauthorized purchase or contract shall be approved by the School Board.

l. Before making any purchase or contracting for services which the Superintendent is authorized by the School Board to make or before recommending any purchase to the Board, the Superintendent shall, insofar as possible, propose standards and specifications. He or she shall see that the purchase or contract conforms to those standards and specifications, and shall take such other steps as are necessary to see that the maximum value is being received for any money expended.

I. PURCHASING POLICIES - *GENERAL PROVISIONS* (continued)

PURCHASING POLICIES

m. Specifications may be limited to a specific brand or product when necessary to supplement existing installations or for purposes of standardization. However, specifications which exceed industry standards for the intended use of the product, as determined by the Director of Purchasing, must be justified in writing by the requestor and authorized by the appropriate Area or Associate/Deputy Superintendent. When drafting specifications for public bidding or considering renewal of an existing contract, the Purchasing Department will request input and assistance from the requestor in order to insure that specifications best meet the needs of the requestor. However, in the event that input and assistance is not received in a timely manner, the Purchasing Department may take action in the best interest of the district, including, but not limited to, releasing a solicitation or renewing an existing contract without the consent of the requestor.

n. As required by Chapter 6A-1.012, State Board of Education Administrative Rules, the School Board shall receive and give consideration to the prices available to it under rules of the Department of Management Services, Division of Purchasing including the program for on-line procurement of commodities and contractual services as referenced in Section 287.057(23)(a) under the rules of the Department of Management Services, Division of Purchasing. School boards may use prices established by the Division of Purchasing through its state negotiated agreement price schedule. If school board policy provides for purchasing under this program of negotiated price agreements, the conditions for use shall be those imposed on state agencies.

o. In lieu of requesting bids from three (3) or more sources, the School Board may make purchases at the unit prices in contracts awarded by other city or county governmental agencies, other school boards, community colleges, or state university system cooperative bid agreements when the bidder awarded a contract by another entity defined herein will permit purchases by a school board at the same terms, conditions, and unit prices awarded in such contract, and such purchases are to the economic advantage of the School Board.

p. If the requested spending authorization for purchases from a contract described in Rules n. or o. above is less than $500,000, then the Superintendent of Schools is authorized to make purchases from the contract without prior School Board approval. The Superintendent of Schools will furnish the School Board a list monthly of all contracts utilized under Rules n. and o. above having a spending authorization less than $500,000.

q. Except as authorized by law or rule, written solicitations shall be released to three (3) or more sources for any authorized purchase or contract for services exceeding the amount established in Section 287.017, Florida Statutes, for purchasing category two. [This amount is currently $25,000]. School boards, by rule, shall set this amount or a lesser amount and shall establish purchasing policy relative to purchases of a dollar value less than this threshold. The School Board shall have the authority to reject any or all bids and request new bids. In acceptance of bids, the School Board shall accept the lowest and best bid from a responsive and responsible bidder. The School Board is not required to request bids for purchases made from contracts of the Department of Management Services, as referenced in Rule n. above. Bids are not required for purchases made through the pool purchase provisions of Chapter 6A-1.013, State Board of Education Administrative Rules.

r. The Board authorizes the Superintendent to prepare and distribute any forms which are necessary to carry out the provisions of this policy. Such forms shall be considered as an official component of the Board's purchasing procedure.

s. In a competitive procurement utilizing written solicitation process, when identical prices are received from two or more vendors and all other factors are equal, priority for award shall be given to vendors in the following sequence:

1. A business that certifies that it has implemented a drug-free work place program shall be given preference in accordance with the provisions of 287.087, Florida Statutes;

2. The Broward County Certified Minority/Women Business Enterprise Vendor;

I. PURCHASING POLICIES - *GENERAL PROVISIONS* (continued)

3. The Palm Beach or Dade County Certified Minority/Women Business Enterprise Vendor;

4. The Florida Certified Minority/Women Business Enterprise Vendor;

5. The Broward County Vendor, other than a Minority/Women Business Enterprise Vendor;

6. The Palm Beach or Dade County Vendor, other than a Minority/Women Business Enterprise Vendor;

7. The Florida Vendor, other than a Minority/Women Business Enterprise Vendor;

8. If application of the above criteria does not indicate a priority for award, the award will be decided by a coin toss. The coin toss shall be held publicly at the location where the bids were opened; the tie low bid vendors invited to be present as witnesses.

t. In a competitive procurement utilizing a Request For Proposals ("RFP") process, when an evaluation committee assigns points to the proposals received resulting in two or more proposals receiving identical points and all other factors are equal, priority for award shall be given to vendors in the following sequence:

1. A business that certifies that it has implemented a drug-free work place program shall be given preference in accordance with the provisions of 287.087, Florida Statutes;

2. The Broward County Certified Minority/Women Business Enterprise Vendor;

3. The Palm Beach or Dade County Certified Minority/Women Business Enterprise Vendor;

4. The Florida Certified Minority/Women Business Enterprise Vendor;

5. The Broward County Vendor, other than a Minority/Women Business Enterprise Vendor;

6. The Palm Beach or Dade County Vendor, other than a Minority/Women Business Enterprise Vendor;

7. The Florida Vendor, other than a Minority/Women Business Enterprise Vendor;

8. If application of the above criteria does not indicate a priority for award, the award will be decided by a coin toss. The coin toss shall be held publicly as part of the meeting of the evaluation committee.

u. Additional exemptions authorized under certain conditions.

The requirements for requesting bids or releasing written solicitations and making purchases for goods and services are waived, as authorized by Chapter 6A-1.012, State Board of Education Administrative Rules, when the following conditions have been met:

1. Bids have been requested in the manner prescribed by the State Board; and

2. The School Board has made a finding that no valid or acceptable firm bid has been received within the prescribed time.

When such a finding has been officially made, the School Board may enter into negotiations with suppliers of such goods and services and shall have the authority to execute contracts with such suppliers under whatever terms and conditions as the Board determines to be in the best interests of the school system.

I. PURCHASING POLICIES - *GENERAL PROVISIONS* (continued)

v. In each district in which the purchasing agent for any public agency of the state is authorized by law to make purchases for the benefit of other governmental agencies within the county, the School Board shall have the option to purchase under the current contracts as may be established for any of the public agencies as set forth above at the unit price stated therein, if such purchase is to the economic advantage of the School Board, subject to conformance of the items of purchase to the standards and specifications prescribed by the Superintendent.

PURCHASING POLICIES

w. Insofar as practicable, all purchases shall be based on requisitions. Within limits prescribed by the School Board, the Superintendent shall be authorized to approve requisitions under rules of the School Board; provided that in so doing, he or she shall certify that funds to cover the expenditures which would be required by the requisitions are authorized by the budget and have not been encumbered.

x. Whenever there is an opportunity in the marketplace to obtain additional cost savings from contracts currently awarded or approved by the Board, then the Purchasing Department will pursue additional cost savings from vendors awarded those contracts by requesting special pricing or additional educational discounts. Whenever additional cost savings are identified by this process, the Superintendent will present the potential additional cost savings to the School Board for post approval.

y. Whenever the School Board finds a vendor to be in default of a contract which the vendor has been previously awarded, then the vendor will be removed, for a period of two years, from all bid lists and will not be considered for any new awards during this period. At the end of this period, the vendor may re-apply for inclusion on bid lists and may be considered for any new awards.

z. The School Board shall authorize the Superintendent to establish procedures and to designate the authority to staff in order to implement this Policy.

aa. The Superintendent shall furnish the School Board twice yearly a report of all purchases made under $5,000, in accordance with Rule a. above, which did not require quotations or bids; and a report of all purchases made from $5,000 to less than the amount established herein which requires bids, in accordance with Rule b. above, which were made on the basis of three written quotations.

bb. Any leasing or rental of tangible personal property (equipment and vehicles) shall be established based upon both the total combined expenditure for the District and the requirements established by Rule herein for requesting either written quotations or bids. Agreements for an amount less than the amount established herein for requesting bids shall require the signature of the Superintendent of Schools after approval as to form by the School Board Attorney and the Director, Risk Management. The respective division/department head shall maintain a master file of agreements signed by the Superintendent of Schools for its division/department. Agreements for an amount established herein for requesting bids shall be placed on the School Board Agenda after approval as to form by the School Board Attorney and the Director, Risk Management. Agreements for an amount established herein for bids and resulting from a bid recommendation shall be placed on the School Board Agenda by the Director of Purchasing. Agreements for an amount established herein for bids and not resulting from a bid recommendation shall be placed on the School Board Agenda by the respective division/department head. A copy of all agreements approved by the School Board shall be retained by Official School Board Records.

II. PURCHASING POLICIES - FACILITIES AND CONSTRUCTION MANAGEMENT DIVISION

a. All additions, modifications, and alterations to School Board properties shall conform with the State Requirement for Educational Facilities (SREF), Florida Building Code (FBC) and the laws of the State of Florida. School Board administrators shall obtain assistance in preparing bid specifications and applicable building permit(s) from the Facilities and Construction Management Division for these items.

b. The Board may structure contracts to avoid sales tax on public works project materials by purchasing those materials directly from the from the supplier rather than having the contractor make those purchases. A direct purchase program avoids the sales tax on

materials incorporated into a public project. Section 212.08(6), F.S., contains the following basic requirements to qualify for the direct purchase program and the Board authorizes the Chief Operations Officer (COO) to establish procedures and contracts complying with the basic requirements and submission of an application for approval of the District's direct purchase program to the Department of Revenue.

i. The District will issue its own purchase order directly to the suppliers.
ii. The District will provide the supplier with a copy of the District's sales tax exemption certificate.
iii. The supplier's invoices will be addressed to the District, not the contractor.
iv. Payments will be made by the District directly to the supplier.
v. The District will take title of the building materials and equipment directly from the supplier upon delivery rather than from the contractor after the project is completed.
vi. The District rather than the contractor will bear the risk of loss of the materials as established through contract provisions concerning casualty insurance.

The Board hereby authorizes the purchase of building materials and equipment through the direct purchase program contracts rather than from other contracts the Board may have with other suppliers for these items.

III. PURCHASING POLICIES - *FOOD AND NUTRITION SERVICES*

a. Groceries, canned goods, frozen foods, meats and dairy products shall be purchased for the Food and Nutrition Services operation and vocational centers on bids. The Superintendent may exempt these items from bid requirements (except milk) during periods of fluctuating market conditions, and under terms and conditions to be in the best interest of the school system. Milk may be exempt from this procedure under the following conditions:

1. The School Board has made a finding that no valid or acceptable firm bid has been received within the prescribed time; or

2. The School Board has made a finding that an emergency situation exists and may enter into negotiations with suppliers of milk and shall have the authority to execute contracts under whatever terms and conditions as the Board determines to be in the best interest of the school system.

Purchasing procedures for all items exempt from bid requirements to be purchased by the Food and Nutrition Services Department shall be coordinated with and approved by the Director of Purchasing, except for special class projects. (See State Board of Education Administrative Rule 6A-7.042[2]).

b. Seasonal fresh fruits and vegetables shall be bid-exempt and shall be purchased by the individual school food service departments under terms and conditions determined to be in the best interest of the school system.

PURCHASING POLICIES

III. PURCHASING POLICIES - *FOOD AND NUTRITION SERVICES (continued)*

c. In order to effect an orderly and efficient operation, the Food and Nutrition Services Department shall be exempt from the requisitioning process, encumbering and use of purchase orders for the purchase of food items in accordance with State Board Administrative Rules.

d. All food purchases shall conform to the Federal Food, Drug and Cosmetic Act, the Federal Meat Inspection Act, and the Meat Inspection Law of Florida, and any other federal or state safeguards relating to the wholesomeness of specific items being purchased.

IV. PURCHASING POLICIES - *RISK MANAGEMENT AND BENEFITS DEPARTMENTS*

a. All Employee Benefit Programs (Health, Life Insurance, etc.) shall be competitively bid as required in Chapter 112.08, Florida Statutes. Once competitively bid, subsequent contract renewal(s) may be negotiated, and presented to the School Board for approval. Any plans for self-insurance or entering into a Risk Management consortium to provide such coverages, must be presented to the School Board for approval, and to the Department of Insurance.

b. Except as otherwise required by statute, the School Board, when purchasing insurance, entering risk management programs, or contracting with third party administrators, may make any such acquisitions through the bid process as described herein or by direct negotiations and contract.

V. PURCHASING POLICIES - *TECHNOLOGY*

(DEFINITION)

a. Policy 5306 envisions a fully integrated technology system covering, but not limited to, the following:

1. Instructional and staff workstations (both desktop and portable), printers, scanners and other peripherals;
2. Administrative staff workstations (both desktop and portable), printers, scanners and other peripherals;
3. Campus and departmental local area networks (both wired and wireless), including wiring, hubs, routers, transmitters/receivers and other devices;
4. Servers, including instructional lab servers, CD-ROM servers, video servers, file and print servers, database servers, and Internet proxy caching servers;
5. A Wide Area Network linking all SBBC sites into one countywide Intranet;
6. Telephone systems, including primary systems, integrated voice response/management systems, and automatic dialing systems;
7. Learning resource management systems, including library automation systems;
8. Distance learning systems;
9. Video capturing, broadcast, receiving, and distribution systems;
10. Teleconferencing systems;
11. Application software packages which result in the creation and maintenance of an operational database;
12. Energy management and security monitoring systems;
13. Radio systems;
14. Office copier, imaging, and document management systems;
15. Paging systems;
16. Intercom Systems; and
17. Facsimile systems.

In order to acquire, install, operate, and maintain this technology system, the District will conduct a high level of technology procurement activities on an on-going basis.

V. PURCHASING POLICIES - ***TECHNOLOGY (continued)***

(RATIONALE)

b. Policy 5306 prescribes specific guidelines which bear directly on the process for procurement of technology resources. Specific guidelines that influence technology procurement are as follows:

1. There will be a single technology system encompassing teaching, learning, and management.
2. System design will be based on vendor-independent open system standards.
3. Networks will integrate voice, video, and data communications systems.
4. The data architecture will be based on an enterprise-wide network using client-server technology.
5. Database management software will be relational and be able to run on a variety of operating systems and hardware platforms.
6. Information will be recorded once and validated at the source.
7. All mainframe, personal and mini-computers and peripherals will be inter-connected through network hardware and software.
8. Technology must be kept current, within available resources, and replaced or upgraded based upon a life-cycle process.

(IMPLEMENTATION)

c. Based upon the above Definition and Rationale, when acquiring technology, the following provisions will apply:

1. Technology procurement will be designed to minimize the total cost of ownership over the intended useful life of five - seven years, which includes procurement, installation, technical support, maintenance, and training costs.

2. Technology procurement will be based upon standards and specifications developed through the Technology Standards and Guidelines Committee process, and shall include review by the Technology Advisory Committee prior to adoption of the standards by the administration.

3. Procurement of volatile items will have a maximum contract period consistent with industry product development cycles. Volatile items are defined as those items with significant annual cost reductions and/or product life cycles equal to or less than SBBC project cycles.

4. The School Board, when acquiring, whether by purchase, lease, lease with option to purchase, rental or otherwise, information technology resources, as defined in Section 282.303(13), Florida Statutes, may make any acquisition through the bid process as described herein or by direct negotiation and contract with a vendor or supplier, as best fits the needs of the School District as determined by the School Board.

5. Technology procurements will be consistent with Policy 5306 and the District's Information Technology Plan and will utilize one or more of the following options:

(a). Bid/Frequent Re-bid. Using this option, specifications, projected quantities, and special conditions are developed, and vendors submit bids which are evaluated so that award recommendations can be made to the School Board. The School Board approves an award(s) which results in a short term contract. Before that contract expires, the specifications, projected quantities, and special conditions are reviewed and revised if necessary, and a new bid is released. When properly synchronized, there would be no lapse in the availability of contract awards to support the education technology program since each new bid produces a contract that becomes effective upon the lapse of the previous contract.

PURCHASING POLICIES

(IMPLEMENTATION) (continued)

(b). Bid/Special Pricing. Using this option, a contract is used which establishes a percentage discount from manufacturers' published pricing over a longer term of award. During this term, SBBC may solicit "Best and Final Pricing" from all vendors awarded this contract. Staff evaluates the pricing received and recommends the supplier providing the greatest cost savings. The Superintendent will present the evaluation to the School Board for approval.

(c). Direct Negotiation. Using this option, specifications, projected quantities and terms and conditions would be a basis for negotiation of a contract which best fits the needs of the School Board. The contract would be brought to the School Board for approval.

(d). Use of Other Governmental Contracts. Using this option, contracts awarded by other governmental entities may be utilized after Board approval. The specifications, terms and conditions, costs and award period cannot be modified by SBBC.

VI. PURCHASING POLICIES - *PROTESTS ARISING FROM THE CONTRACT BIDDING PROCESS*

a. The School Board shall provide notice of its decision or intended decision concerning a bid solicitation or a contract award as follows:

1. For a bid solicitation, notice of a decision or intended decision shall be given by United States mail, by hand delivery or by electronic posting.

2. For any other decision, notice of a decision or intended decision shall be given either by posting the bid tabulation at the location where the bids were opened, by certified United States mail or other express delivery service, return receipt requested, or by electronic posting.

The notice required by this Rule shall contain the following statement: "Failure to file a protest within the time prescribed in s. 120.57(3), Florida Statutes, shall constitute a waiver of proceedings under Chapter 120, Florida Statutes."

b. The date and time of posting the bid tabulation may be established in the bid document. Bidders will be notified by certified United States mail, other express delivery service, return receipt requested or by electronic posting of the bid posting date and time if not included in the bid documents or request for proposals, or if there is change in the bid posting date and time previously established. Any notification shall advise bidders of date and time at which bid tabulation will be posted, which date shall be at least three days, excluding Saturdays, Sundays, and days during which the School Board administration is closed, subsequent to the date that the notification is given.

c. In the event that the School Board takes action to award a bid in a manner which differs from the posted notice of intended decision, or the last notice of intended decision if more than one notice was provided, such award does not become final until seven calendar days after the School Board action. Within two working days of such School Board action, all bidders shall be notified of the action by certified United States mail or other express delivery service, return receipt requested or by electronic posting. A written notice of protest filed by a bidder within 72 hours after receipt of this letter shall stop the award process and invoke the procedures described herein. Saturdays, Sundays, and days during which the School Board administration is closed shall be excluded in the computation of the 72-hour time period provided by this Rule.

VI. PURCHASING POLICIES - *PROTESTS ARISING FROM THE CONTRACT BIDDING PROCESS* (continued)

PURCHASING POLICIES

d. Any person who is adversely affected by the School Board's decision or intended decision shall file with the School Board a notice of protest in writing within 72 hours after the posting of the bid tabulation or after receipt of the notice of the School Board's decision or intended decision, and shall file a formal written protest within 10 days after filing the notice of protest. With respect to a protest of the specifications contained in an invitation to bid or in a request for proposals, the notice of protest shall be filed in writing within 72 hours after the receipt of notice of the project plans and specifications or intended project plans and specifications in an invitation to bid or request for proposals, and the formal written protest shall be filed within 10 days after the date the notice of protest is filed. Failure to file a notice of protest or failure to file a formal written protest shall constitute a waiver of proceedings under this chapter. The formal written protest shall state with particularity the facts and law upon which the protest is based. Saturdays, Sundays, and days during which the School Board administration is closed shall be excluded in the computation of the 72-hour time periods provided by this Rule.

e. A written notice of decision or intended decision received in accordance with Chapter 119, Florida Statutes, or School Board Policy 1343, shall not be used as a basis for filing a notice of protest as described herein.

f. A notice of protest or a formal written protest shall be filed with the School Board at the location described in the bid documents. A protest is filed when it is received in its entirety at the described location. It is the sole responsibility of the protestant filing the protest to be certain that the protest is properly and completely filed. The decision as to the time that the protest is filed in its entirety at the described location is solely that of the School Board. A protest may be filed by facsimile.

g. If the tenth day in which to file a formal written protest falls on a Saturday, Sunday, or days during which the School Board administration is closed, the formal written protest must be filed the next day. For the method of computing the ten days in which a person has to file a formal written protest after the notice of protest is received, the day that the notice of protest is filed is not considered as one of the ten days.

h. Upon receipt of the formal written protest which has been timely filed, the School Board shall stop the bid solicitation process or the contract award process until the subject of the protest is resolved by final School Board action, unless the Superintendent sets forth in writing particular facts and circumstances which require the continuance of the bid solicitation process or the contract award process without delay in order to avoid an immediate and serious danger to the public health, safety, or welfare. When the Superintendent so notifies the School Board, then the Superintendent is authorized to continue the bid solicitation process or the contract award process and to release Purchase Orders for purchases regardless of the protest.

i. When the contract award process is stopped due to the filing of a formal written protest, the School Board authorizes the extension of any existing contract for the goods or services contained in the bid or request for proposals being protested under whatever terms and conditions are determined by the Superintendent to be in the best interest of the School Board until such time as the new award under protest can be approved by the School Board.

j. The School Board shall provide an opportunity to resolve the protest by mutual agreement between the parties within seven days, excluding Saturdays, Sundays, and days during which the School Board administration is closed, after receipt of a formal written protest.

k. If the subject of a protest is not resolved by mutual agreement within seven days, excluding Saturdays, Sundays, and days during which the School Board administration is closed, after receipt of the formal written protest, and if there is no disputed issue of material fact, an informal proceeding shall be conducted pursuant to Chapter 120.57(2), Florida Statutes, and applicable School Board rules before a person whose qualifications have been prescribed by rules of the School Board.

VI. PURCHASING POLICIES - *PROTESTS ARISING FROM THE CONTRACT BIDDING PROCESS* (continued)

PURCHASING POLICIES

l. If the subject of a protest is not resolved by mutual agreement within seven days, excluding Saturdays, Sundays, and days during which the School Board administration is closed, after receipt of the formal written protest, and if there is a disputed issue of material fact, the School Board shall refer the protest to the Division of Administrative Hearings for proceedings under Chapter 120.57(1), Florida Statutes, upon the written request of the protestant. This written request by the protestant shall be filed at the same place at which the formal written protest was filed within three days, excluding Saturdays, Sundays, and days during which the School Board administration is closed, after the attempt to resolve the protest by mutual agreement.

m. When attempting to resolve the subject of a protest by mutual agreement as described in Rule l., the persons representing the School Board shall be as follows:

1. The Associate Superintendent, Human Resources, or designee;

2. The Comptroller, or designee;

3. The Superintendent's designee(s) from the affected division; and

4. The School Board Attorney, or designee shall serve solely as the legal advisor.

During the seven day period described in Rule l., these persons shall meet with the protestant in an effort to mutually resolve the protest. If the protest is mutually resolved, then no further action is required by either the School Board or the protestant. If the protest is not resolved, then the protestant shall file a written request for a hearing in accordance with Rule l.

n. Any person who files a formal written protest shall post with the School Board, at the time of filing the formal written protest, a bond, payable to The School Board of Broward County, Florida, in an amount equal to one percent (1%) of the Board's estimate of the total volume of the contract, The School Board shall provide the estimated contract amount to the vendor within 72 hours, excluding Saturdays, Sundays and other days during which the School Board administration is closed. The estimated contract amount is not subject to protest pursuant to Section 120.57(3), Florida Statutes. The bond shall be conditioned upon the payment of all costs which may be adjudged against the protestant in an Administrative Hearing in which the action is brought and in any subsequent appellate court proceeding. In lieu of a bond, the School Board may accept a cashier's check, official bank check or money order in the amount of the bond. If, after completion of the Administrative Hearing process and any appellate court proceedings, the School Board prevails, then the School Board shall recover all costs and charges which shall be included in the Final Order or judgment, including charges made by the Division of Administrative Hearings, but excluding attorney's fees. Upon payment of such costs and charges by the protestant, the bond shall be returned. If the protestant prevails, then the protestant shall recover from the Board all costs and charges which shall be included in the Final Order or judgment, excluding attorney's fees.

o. Upon receipt by the School Board of a recommended order as the result of proceedings by the Division of Administrative Hearings due to the filing of a formal written protest, then the School Board has the final decision whether to accept or reject the protest. A final order shall be entered by the School Board within 30 days of the entry of a recommended order. The provisions of this Rule may be waived upon stipulation by all parties.

VII. PURCHASING POLICIES - *FIELD TRIPS*

PURCHASING POLICIES

a. Expenditures for field trips do not require bidding by the Purchasing Department or School Board approval.

b. All field trips shall comply with School Board Policy 6303.

AUTHORITY: F.S. 1001.41, F.S. 287.057(23)(a)
STATE BOARD RULE #6A 1.012
RULES ADOPTED: 3/20/75
RULES AMENDED: 7/29/76; 4/14/77; 1/18/79;
10/4/79; 7/3/80; 1/22/81:
6/16/83; 4/10/84; 6/21/84;
2/7/85; 10/1/87; 10/3/89
Emergency Rule #90-91-2 Approved: 10/16/90
Amended Rules Approved: 10/16/90; 6/18/91; 5/4/93; 9/7/93
Amended Rules Approved: 8/18/98, 12/12/00, 8/5/03; 1/20/04

Broward County Public Schools
Technology Standards

Introduction

The establishment and adherence to technology standards is essential in designing, implementing and supporting Broward School's world class technologies - from the core network infrastructure to the end-user devices that are used in classrooms and offices every day throughout the District.

This web site provides resources to assist technology users across the Broward County Public School system make appropriate purchasing and deployment decisions. It is also a resource for District staff engaged in the standards development processes to coordinate and document their efforts.

The menu to the left provides links to information pertaining to the standards setting processes and specific technology standards.

Broward County Public Schools
Technology Standards

Goals

1. Manage the proliferation of technical products.
2. Optimize the total cost of ownership.
3. Assure interoperability.
4. Leverage purchasing power.
5. Provide learning models linked to the National Educational
6. Technology Standards (link to NETS at (LINK) http://cnets.iste.org/currstands/)
7. Provide a system to monitor compliance with technology standards.
8. Assure compliance with established IT security and business continuity practices.

Rationale

As technology is increasingly integrated into the curriculum and administrative processes of Broward County Public Schools, it is necessary to ensure that the hardware, software, and technology services required by the district are acquired efficiently, meet the functional requirements of the item's user community, meet the technical requirements of the applications at the lowest cost, while providing high levels of availability and reliability to the users.

Why are purchasing standards needed?

- Ensure interoperability of all elements of the system
- Lower procurement costs
- Simplify maintenance, support, and asset management to reduce total cost of ownership.

Once standards are established, their use must be enforced through well-designed and documented purchasing procedures. A designated standards committee with representatives from all district technology users and departments has been created to establish these standards and monitor adherence to them on an ongoing basis.

Waiver Process

On occasion, a school or department may have special needs for a technology purchase that has either been overlooked in the Standards-setting processes or has been determined to have functional requirements, cost prohibitions, or purchasing complications that prevent its adoption as an SBBC Technology Standard. In these instances it is necessary for the school or department to pursue the purchase of this technology using the "Waiver Process".

There are three main parts to a waiver request:

- A hard copy of the Purchasing Requisition Form. To confirm if the purchase meets the District Purchasing and Technology Usage Policies, review the policy here .
- A completed waiver request form signed by the principal, director, or person authorizing the purchase.
- Include all quotations, terms and conditions of procurement, and technical specifications of the desired product purpose.

See Process Flow Chart on Page 2

INITIAL PURCHASING REQUEST

Customer Initiates a Purchasing request

Item requested is a technology commodity with an STND#

Processed for purchase

Item requested is a technology commodity that has not been assigned a STND#, nor requiring one*

Processed for purchase

Item requested is a technology commodity for which an alternative product has been assigned an STND#, but which doesn't meet the needs of the school or department.

Customer advised by Purchasing to follow the **waiver process**

WAIVER PROCESS

1)Customer sends Purchasing Information Packet(Requisition materials) and Waiver Letter to Technical Support Services Unit of ETS

2) TSS logs the waiver request and distributes copies of the waiver packet to the appropriate Standards Sub-Committee

3) Standards Sub-committee reviews the request and formulates a recommendation to approve or deny

4) Chairperson of the Sub-committee advises TSS or ruling.

If Approved:
TSS prepares an approval letter from the CIO to the customer advising of waiver approval.

TSS prepares an approval letter from the CIO to the Purchasing Department advising of waiver approval.

Processed for purchase

If denied:
TSS prepares a letter from the CIO to the customer advising of waiver denial.

TSS prepares a letter from the CIO to the Purchasing Department advising of waiver denial.

Order cancelled, or revised and resubmitted

Broward County Public Schools
Technology Standards

Standards Committee Membership

District:

1. Senior Management	Dr. Nancy Terrel	Assistant Superintendent Communications, Strategic Planning & Community Involvemer
2. ETS	Angela Coluzzi	Director, Network Integration
3. Magnet	John Burke	Magnet Coordinator
4. Curriculum	Peggy Livingston	Instructional Technology Specialist, Customer Staff Development Services
5. ESE	Razia Pullen	Program Specialist Instructional Technology
6. Vocational	John Felser	Career, Technical, Adult Community Educat
7. Financial	Rick Vargas	Network System Administrator
8. Learning Resources	Renee Schwartz	Media Specialist
9. HRD	Bette Zippin	Coordinator, Professional Development Sup
10. Food Services	Barbara Leslie	Area Supervisor
11. Transportation	Tony Rao	Network Analyst II
12. Purchasing	Robert Peinado	Technology Standards Specialist
13. BECON	Andy Furlong	TV Broadcasting Engineer Manager
14. Facilities	Ed Hineline	Director, Property Management
15. SAP Support Center	Bill Blakley	Systems Analyst

16. School Improvement	Judy Zinn	Director, Continuous Improvement
17. Multicultural	Dr. Elizabeth Watts-Murdock	Specialist, Multicultural, Foreign Language,
18. Core Curriculum	Dr. Mark Quintana	Curriculum Specialist, Secondary Social Stu

ETS:

	Doug Pearce	District Network Coordinator
	Becky Schmaus	Specification Coordinator
	Brenda Markley	Customer Service Analyst
	Bill Lawrence	System Analyst

Schools:

1. Media Specialist	Simone Primus	Monarch High School
2. Principal – Elem	Chuck McCanna	Nova Blanche Elem.
3. Principal – Middle	Barbara Barrs	Lyons Creek Middle
4. Principal – High	Joel Herbst	South Plantation High
5. Principal – Center	Valerie Wanza	Lanier-James Education Center
6. Instructional Technology Specialist - High	Judy Terboss	Stoneman Douglas High
7. Instructional Technology Specialist - Middle	Sheryl Noland	Attucks Middle School
8. Instructional Technology Specialist - Elementary	Coby Enteen	Coconut Palm Elementary
9. Vocational/Technical	Peggy McDowell	McFatter Technical Center & High School

Area:

10. Instructional Technology Specialist - Area	Diane Soloven	North Central Area Office
11. Area Director	Roberta Insel	South Central Superintendent's Office

Subcommittee Membership Assignments

Each sub-committee will be co-chaired by a School-based (S) or Area-based (A) representative and a district-based (D) representative. Initial chairpersons will be designated by an asterisk. Additional members will be added to further balance school- and district-based representation

Computers:

- *Diane Soloven (A)
- Joel Herbst (S)
- Brenda Markley (D)
- Bill Blakely (D)
- Mike McCutcheon (D)
- Betty Zippin (D)
- Judy Terboss (S)

Printers/Copiers/Multifunctional Machines:

- *Simone Primus (S)
- John Felser (D)

Servers:

- *Peggy McDowell (S)
- Ed Hineline (D)

Systems:

- *Barbara Barrs (S)
- Dr. Nancy Terrel (D)
- Angela Coluzzi (D)
- Sheryl Noland (D)
- Tony Rao (D)
- Diane Soloven (A)

Software/Productivity & Instructional:

- *Chuck McCanna (S)
- Peggy Livingston (D)
- Judy Zinn (D)
- Mark Quintana (D)
- Becky Schmaus (D)
- Bill Lawrence (D)
- Barbara Leslie (D)

Digital Devices/Peripherals:

- *John Burke (D)
- Coby Enteen (S)
- Razia Pullen (D)

Audio/Video Equipment:

- *Renee Schwartz (D)
- Andy Furlong (D)

Communications: Telecommunications and Networking:

- *Valerie Wanza (S)
- Doug Pearce (D)
- Dr. Elizabeth Watts-Murdoch (D)
- Rick Vargas (D)
- Roberta Insel (S)

Industry Services:

- *Peggy McDowell (S)

Sub-Committee Role and Responsibilities

The responsibilities of the Technology Standards Sub-Committee are:

1. Evaluate requests for technology standards as described in the process flowchart.
2. Review requests for specific technology items. This excludes requests for standard deployment models or other “non-purchasing” related questions.
3. The focus of the standards setting process will be the identification of appropriate technology commodities and solutions that:
    - Represent an aggregate District purchase sufficient in quantity and dollar volume to warrant the creation of an identified Technology Standard.
    - Are available from vendors who hold current competitive bid or RFP awards or are otherwise available by way of approved Purchasing vehicles.
    - Meet the functional requirements of the customer or customer group requesting the establishment of the technology standard.
    - Are neither “out-dated” nor ”bleeding edge” in their product development cycle are proven technologies that will serve the SBBC user community into the future.
    - Are cost justifiable to purchase.
    - Are cost efficient to use, monitor, and maintain.
    - Are compatible and interoperable with other SBBC systems.
    - Are compliant with the District’s network and computer security models.
    - Appropriately address all of the District's Policies and State and Federal statutes that may have governance over aspects of the technology (SBBC Policy 5306, CIPA, COPA, FERPA, HIPPA, etc).

Broward County Public Schools
Technology Standards

FAQ's

What's the purpose of this website?
This site provides one-stop access to all the standards that are currently supported by the School Board of Broward County, FL.

Why can't I find equipment/technology items that I'm looking for?
In some instances SBBC has not yet defined a standard for a particular item. For example, the desired item may be under review. In other cases, it may not meet the needs of Broward County Public School users and therefore has not been added as a standard.

Where can I find information about equipment/technology items that do not have standards?
In the category where the equipment/technology item fits, select the link, "For more information contact…" to identify the contact information for the Purchasing Agent with responsibility over that Item.

The equipment listed in the standard does not meet my needs. I want something very similar, but with additional functionality. What can I do?
SBBC has provided the school district a method for obtaining authorization to purchase equipment that falls outside the standards process. It is called the waiver process. (LINK)

I want equipment/technology item added to the list of available Standard equipment. How do I request that equipment be added?
Contact a member of the Technology Standards Committee, and they will direct it to the appropriate standards sub-committee for review. (LINK)

How often are the SBBC Standards refreshed on this list?
The standards for technology sub categories are in a continuous cycle of review. Some of the items are brought for review by vendors and others by end-users.

Some posted information seems incorrect, inaccurate or inappropriately categorized. What is the process for suggesting changes or corrections?
Contact the ETS Help Desk (LINK to contact info) and inform them of the potential problem. They will forward your information to the appropriate standards sub-committee.

Executive Summary

RFP 25-005N:
SBBC Telecommunications, Internal Connections and Internet

RFP Award / E-Rate Filing

February 15, 2003

RFP 25-005N:
Telecommunications, Internal Connections and Internet

This document has been created to provide the School Board of Broward County a summary of the Award Recommendations for RFP 25-005N. The RFP was drafted to procure a broad range of telecommunications goods and services for a five year term for Broward County Public Schools beginning February 1, 2004. One of the key goals in the development of the RFP was to maximize the E-rate eligibility of pertinent goods and services that will be procured within the scope of this RFP. This RFP represents the consolidation of a number of RFPs and Bids that in the past were awarded separately. The previous Bids and RFPs had disparate effective dates, renewal options, and termination dates. The development of this RFP was a major undertaking that attempted to bring a broad range of goods and services into one purchasing vehicle.

The Education Technology Services Department and the District's Purchasing Department collaborated extensively with consultants from the CELT Corporation in the drafting of this RFP and worked together in a closely coordinated evaluation process. Education Technology Services also engaged a number of outside resources in the review of the RFP's design, content, and evaluation processes. The District's Technology Advisory Committee reviewed the RFP on a number of occasions. The CELT Corporation assisted in the drafting of the RFP, and reviewed the technical integrity of the documents. ETS reached out to the broader South Florida community in the evaluation phase, engaging experts from organizations such as North Broward Hospital District, Broward County Government – Libraries Division, Florida Atlantic University, Nova Southeastern, South Florida Water Management District, and others in the actual RFP evaluation process.

This RFP was crafted to position the District to economize the purchase of current telecommunications goods and services required by the educational and administrative environments within the school system. The RFP does not, by virtue of its conceptual structure nor its technical specifications, adhere to any one particular technology plan. Rather, it provides the purchasing vehicle to responsibly procure goods and services in nine key telecommunications market sectors in ways that will support the daily "business-as-usual" demands of the District, and accommodate the needs of the District as it moves forward in developing new long-range technology plans.

This document includes a current timeline highlighting those steps that were taken to develop, post, and evaluate the RFP. Some of the background information that was previously shared concerning the rationale for the RFP, its structural components, and its evaluation criteria are included in this packet. A copy of the documentation submitted to the School Board is included. Finally, a consolidated cost savings / cost avoidance chart is attached to provide high level evidence that the RFP has delivered substantial cost reductions.

RFP 25-005N:
Telecommunications, Internal Connections and Internet

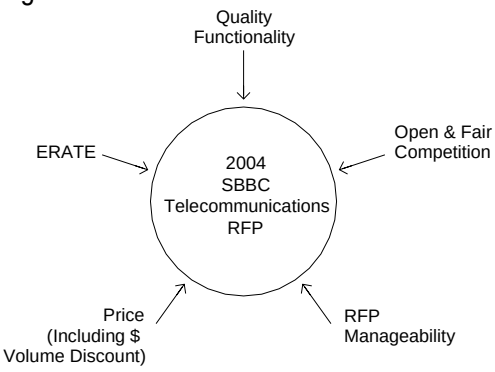
RFP Development Progression:

RFP Stage	Dates	Status	Modifications suggested / Incorporated
ETS staff: Preparation of Group-specific Technical Specifications and Special Conditions	6/1-7/31	Completed successfully	N/A
ETS staff: Development of RFP design and consolidation plan	6/1-7/31	Completed successfully	N/A
Presentation to Technology Advisory Committee / Infrastructure Subcommittee / RFP Design Concept	7/31	Completed successfully	Yes
Presentation to Technology Advisory Committee / Steering Committee / RFP Design Concept	8/7	Completed successfully	Yes
Presentation to Technology Advisory Committee / General Committee / RFP Design Concept	8/14	Completed successfully	Yes
Engagement of CELT / RFP Development Consultants	8/27	Completed successfully	N/A
CELT / ETS Onsite Collaboration – Level Setting and design strategy planning	9/2-9/5	Completed successfully	Yes
Presentation to Technology Advisory Committee / Infrastructure Subcommittee / RFP (Draft – V.3)	9/16	Completed successfully	Yes
Presentation to Technology Advisory Committee / Steering Committee / RFP (Work in Progress)	9/18	Completed successfully	Yes
Presentation to Technology Advisory Committee / General Committee / RFP (Final Draft)	9/25	Completed successfully	N/A
Presentation to SBBC Senior Management	9/29	Completed successfully	N/A
School Board Action to Release RFP	10/7	Completed successfully	Yes
RFP: Proposal Publication and Solicitation Period	10/8-11/12	Completed successfully	N/A
RFP ERATE Filing: Form(s) 470	10/8	Completed successfully	N/A
RFP: Proposer's Conference	10/15	Completed successfully	Yes
RFP: Evaluation Period	11/14	Completed successfully	N/A
RFP: Award Recommendation Posting	11/25	Completed successfully	N/A
RFP: Negotiation Period	11/26 – 12/16	Completed successfully	Yes
RFP Award: Board Action	12/16	Completed successfully	Yes
ERATE: Filing of Form(s) 471	Mid-January	Completed successfully	Yes
Effective date of new RFP awards	2/1/2004	Completed successfully	Yes

RFP 25-005N:
Telecommunications, Internal Connections and Internet

RFP development drivers:

The 2004 SBBC Telecommunications RFP (25-005N) was designed to provide a purchasing vehicle for a fully functional, cost effective suite of telecommunications goods and services. The diagram below highlights the major concerns that have been factored into the consolidated design of this RFP. Each of these considerations has a number of implications to the way the RFP was drafted. The RFP design, response and evaluation processes resulted in the delivery of highly favorable results in all categories.



Successes in achieving these objectives:

Quality and Functionality:	The evaluation rubrics used in the evaluation process, and the composition of the evaluation teams, enabled SBBC to make award recommendations for goods and services that will offer the full scope functions required by the District, and will be reliable and sustainable.
Price:	Proposers offered competitive pricing; substantiated by their relationship to one another, current price levels, and industry-wide price comparisons.
Open and Fair Competition:	Proposals in response to RFP 25-005N were received from 10 different companies; many responding to multiple RFP Groups. Group evaluations were conducted independently of each other giving large and small companies equal opportunities in the competitive bid process.
ERATE:	The RFP Process, and the filing of appropriate Erate documentation, will assure that SBBC is positioned to receive the maximum reimbursement from the ERATE program for the term of the contract for all eligible services in the 9 commodity Groups.
RFP Manageability:	The RFP combined 9 commodity groupings into one purchasing vehicle. In previous years, these were developed, evaluated and awarded separately. These bids and RFPs were also done much more frequently than will be necessary under the current RFP term. This consolidation effort has greatly streamlined the RFP processes, and improved the manageability of associated annual ERATE filings.

RFP 25-005N:
Telecommunications, Internal Connections and Internet

RFP Structure:

Each of the groups listed below were designed to include Group-specific Terms, Conditions, and Technical Specifications. Standard SBBC General Conditions applied to all Groups. Each of these Groups has Items that are eligible for E-Rate credits. Some are entirely "erate-able" and others will require that ETS institute tracking and reporting tools that ensure that requests for E-rate reimbursements conform to E-rate eligibility requirements.

Group 1: Wired Network Equipment and Maintenance
For the procurement of goods and services required to provide data switching for SBBC's Local Area Networks (LANs)

Group 2: Wireless Network Equipment and Maintenance
For the procurement of goods and services required to provide wireless connectivity at SBBC locations

Group 3: Communications Cabling
For the procurement of goods and services required to provision, modify and maintain the cabling infrastructure at SBBC locations.

Group 4: Voice Equipment and Maintenance Services
For the procurement of goods and services required to provision, modify, maintain, and support the voice switching equipment at SBBC locations

Group 5: Voice Services
For the procurement of voice network services required to interconnect the SBBC voice and video systems, and provide external connections to global telecommunications networks

Group 6: WAN (Wide Area Network) Services
For the procurement of the services required to provide high availability data switching for SBBC's Wide Area Network (WAN)

Group 7: Internet Services
For the procurement of the services of a back-up Internet Service Provider (ISP) for the District – to improve the reliability of this resource

Group 8: Cellular Services
For the procurement of the goods and service required to support mobile, wireless telecommunications connectivity for SBBC staff

Group 9: Pager Services
For the procurement of the goods and services required to provide messaging and alert capabilities for segments of the SBBC work force.

RFP 25-005N:
Telecommunications, Internal Connections and Internet

RFP Evaluation and Award Processes:

The factors, or "drivers", that were considered in the crafting of this RFP are highlighted on page 4 of this document. Two of these factors were central to the development of the RFP's evaluation strategy. First, the District needed to ensure that the business opportunities covered in this RFP were open to many companies – large and small alike. Second, the District needed to make sure that the prices for the goods and services sought through this RFP would be competitive. This was of particular concern if any single vendor were to be awarded more than one Group in the RFP. Consideration of these factors constituted the primary rationale for the following RFP evaluation strategy.

- Single proposers could respond to multiple Groups.
- Each Group evaluation was conducted independently of one another.
- Each Group was awarded to a single proposer.
- Single proposers were eligible to be awarded multiple Groups.

For each group, the evaluation process involved three distinct steps. The first step involved an evaluation of the strengths of the companies that are submitting the proposal (Proposer Qualifications). The second step focused on evaluating the quality, functionality, and added value propositions included in the solutions that are proposed (Solution Qualification). The third step focused on the pricing levels submitted for required goods and services (Price Qualification).

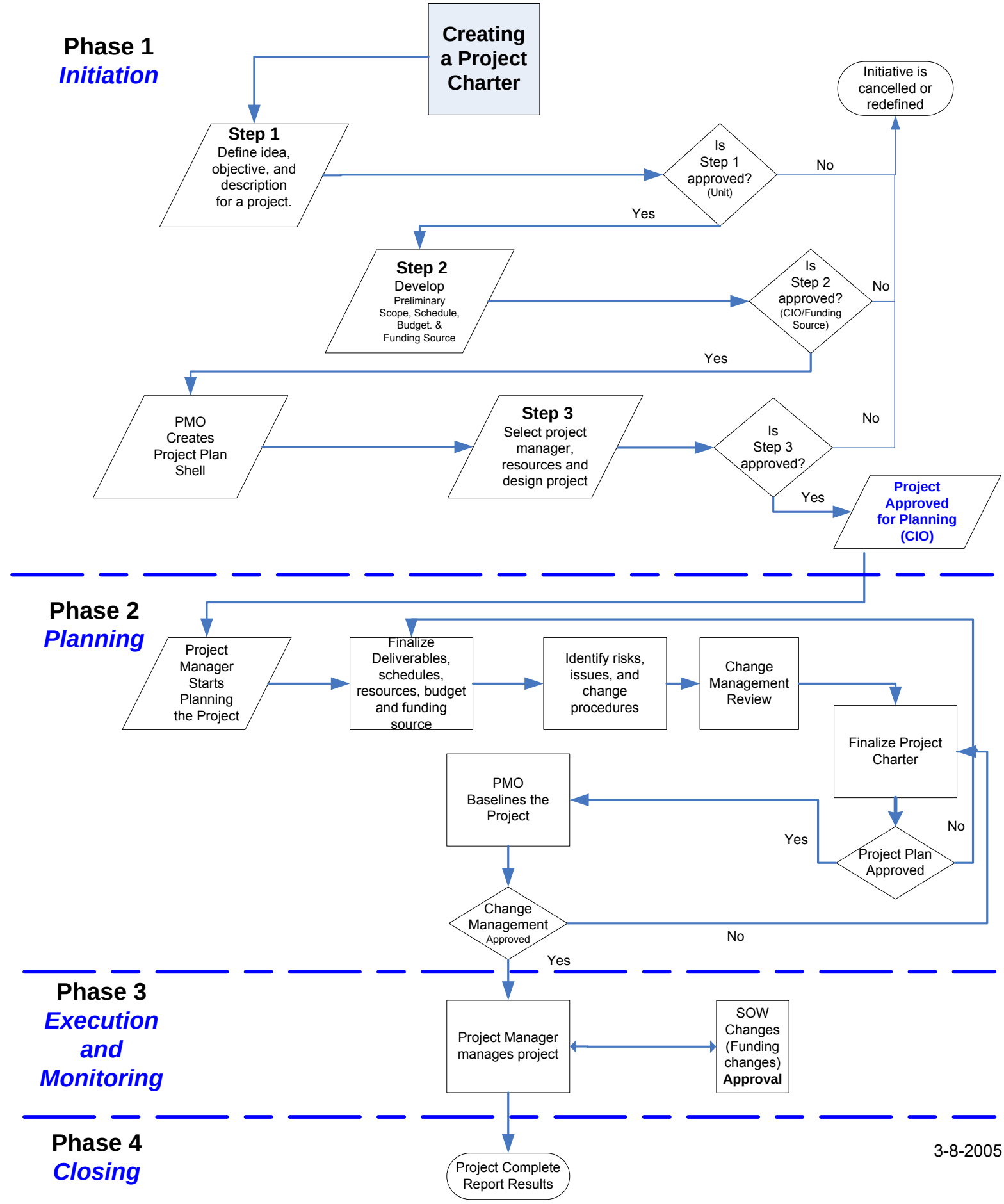
GROUP EVALUATION RUBRIC:

Response to Section:	**Possible Points**	**Effective Weight**
Minimum Eligibility	Pass / Fail	Pass / Fail
Proposer Qualifications / MWBE	320	32%
Solution Qualifications	320	32%
Pricing Qualification	360	36%

The scores earned by each proposer for each phase were combined, and the individual Group Award recommendations were made on the basis of highest combined summary score. See Attachment 1 for detailed scoring information.

Because the structure of this RFP allowed multiple Groups to be awarded to a single proposer, the RFP was structured so that SBBC conducted final contract negotiations for the price levels submitted by awardees of multiple groups with the expectation that additional savings would be offered by these proposers. These price negotiations were conducted on December 3rd and 4th. These sessions produced an opportunity to receive an annual rebate from BellSouth in an amount projected to be approximately $190,000 the first year with a growth incentive. JDL Technologies offered an additional 10% discount on certain items not reflected in the original RFP pricing response.

Project Management Process
"Life of a Project"



3-8-2005

5.5

Provision for technical guidance to school and district personnel responsible for making strategic technology related purchasing decisions.

To assist BCPS leadership with the identification, review, and purchase of instructional digital content, the following steps are recommended at the district level:

- identify and select developmentally appropriate applications for grades preK-12 that align with the Florida Sunshine Standards while supporting and enhancing the current productivity application
- research, review, and analyze best-practice strategies and accompanying applications
- determine which digital, instructional resources, beyond the productivity suite, are desired by most BCPS schools (differentiated by primary, elementary, middle, high school, and adult audiences)
- formulate guidelines and processes for individual schools to investigate and implement alternative software solutions for specific audiences/needs/learning groups
- coordinate vendor demonstrations of instructional technology applications at convenient sites throughout the district
- negotiate high volume purchasing agreements (district/school site-licenses, lab pack discounts, and multi-user subscriptions) with those vendors who distribute desired learning resources
- develop dissemination strategies for making teachers aware of these resources and their intended use
- distribute procedures for securing applications/subscriptions at these prices to all schools
- disseminate to all schools links of free digital content available on the World Wide Web that aligns with district curriculum standards

Software purchasing strategies will take into consideration volume purchasing, district, and network licensing to maximize the audiences with access to these learning resources. These efficiencies are discussed further in section XIV. *Budget, Funding, and Cost Savings*.

It is critical that communication and dissemination channels be developed to distribute selection criteria and acquisition guidelines widely to all

audiences currently purchasing instructional applications, including PTSAs and SIP teams. The proposed CD/IM application will contain a Web-based collection of resources currently available to BCPS educators, thus decreasing the redundant purchase of applications and/or purchases already owned by the district. The district will continue to offer pre-school technology support for parents via the district Web site.

BCPS also seeks to develop standards, selection criteria, and integration guidelines for free resources available on the World Wide Web including, but not limited to:

- museum, government, education, and historical sites
- online learner productivity utilities
- student research portals and tools
- Webquests and Web scavenger hunts
- Webcam sites
- online learning communities
- online tutors
- student activities and templates

An expanded list of free Web-based resources can be found in the following section.

PART EIGHT

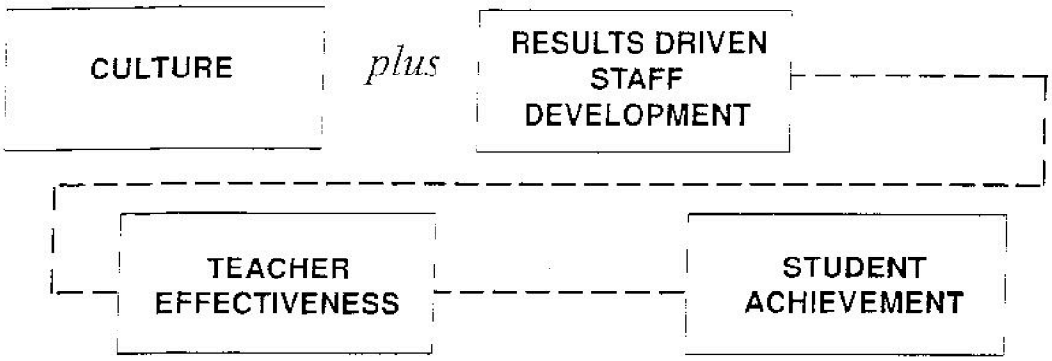


Professional Development System

Professional Development System

Broward County, with a 237,094 multicultural student population, 12,500 instructional staff, and 210 schools, has met the challenge of personalizing professional development in this large urban system by utilizing a comprehensive approach which focuses on linking professional development to student achievement.

In order to improve teacher effectiveness, a professional development system has been readied to establish a district-wide adult learning environment resulting in increased student achievement. Broward's conceptual framework for student achievement is:



Culture

To provide district direction and leadership, the School Board of Broward County, Florida has established a standards based framework of quality expectations for all students

The **Broward Accountability Policy** establishes this framework for school improvement. That policy, in turn, provides the structure for three additional policies designed to redefine excellence in education in Broward County. The first is the **Standards of Service** that defines the expectations for quality student achievement by outlining core competencies which all students need to become productive citizens. The second, **Standards of Student Services**, provides the individual student with the support services necessary to promote and ensure overall student achievement and personal growth. The third policy, **Professional Pathways**, outlines the **Standards of Practice** for professional development opportunities for all employees of the School Board of Broward County.

Professional development in Broward County is founded on the principle of continuous growth and focuses on developing a continuum of experiences from preservice, teacher induction, and inservice culminating in National Board Certification.. The *Human Resource Development* department is responsible for ensuring that staff development is high quality, results driven, based on research and best practices, and accessible to all employees. The district has incorporated the National Staff Development Council (NSDC) standards for content, context, and process in the **Professional Pathways Policy.** The district monitors the implementation of the **Professional Pathways Policy** from the initiation through the evaluation phases of staff development activities.

By mandating that school and department improvement plans are supported by staff development, the **Accountability Policy** ensures that all members of the educational community engage in professional growth opportunities. These improvement plans strive to meet individual needs within the context of Major System Goals and/or School/Zone/Department Plans.

Beliefs, Goals, and Outcomes

Broward's **Professional Pathways Policy** is a critical component of the **Accountability Policy** because it recognizes that if school improvement efforts are to succeed, all individuals in our school district must have the skills and knowledge to effectively improve student achievement. Professional development in Broward County :

- satisfies organizational and individual needs in a large urban district by balancing district leadership and individual choice to determine the content of the program.
- adheres to high quality standards, is results driven, and builds a culture of continuous improvement.
- is an integral component of the district's plan to ensure all students achieve high standards.
- is supported by the School Board's policy and belief system as well as by substantial financial, personnel, and time resources.
- supports teachers' efforts to reach high standards as delineated in the district's job description.
- has documented results of its effectiveness in improving student achievement.

The **District Strategic Vision for Staff Development** clearly articulates that **staff development in Broward County is a coordinated system that is standards-based, job embedded, and collaborative which builds a culture of continuous improvement resulting in school effectiveness and increased achievement for all students.** To ensure that the vision becomes institutionalized in every facet of the organization, goals and action teams guide the implementation process:

- All staff development is coordinated and evaluated for adherence to district staff development standards.
- All staff development providers adhere to the district's approved staff development model.
- All Broward County employees have access to staff development which supports their individual learning plans.
- All employees will have individual learning plans aligned to school/ department, and district goals.
- All employees will be accountable for continuous growth based on their staff development plans, as measured by individual progress towards meeting the school/department and district goals.

The Strategic Vision reflects the purpose of the new legislation. To achieve these goals, the district provides support above and beyond those required by the Appropriations Bill. This support includes an expanded use of technology in the areas of distance learning and just-in-time training to ensure that goals are met.

Results Driven Staff Development

Central to these goals is the implementation of the Results Driven Staff Development model developed by the *Human Resource Development* department. This model provides support for the institutionalization of changes in teaching and student learning that result in increased student achievement of all children no matter what their background, level, or capability. The extensive research used to develop Broward's Critical Content for students and Essential Teacher Knowledge for teachers provides a sound rationale for believing that these models will improve teaching and learning.

District Results Driven Staff Development Model

Problem Identification
The results driven staff development model starts with a vision and a focus that is identified through a gap analysis between actual and expected performance.

Ensuring Alignment with District Goals
All staff development, whether initiated by an individual, school, department or the district, must align with the school district's Major Systems Goals, school or department goals, and school improvement plans and must meet district content, process, and context standards.

Identify Outcomes and Program Evaluation System
Staff development must be outcome-based and results driven. All staff development must clearly delineate what the learner should know and be able to do. Therefore, clear learner outcomes and a methodology for evaluating the transference of new knowledge, skills and techniques are developed. These outcomes serve as a guide to determine which new knowledge; strategy or technique needs to be acquired by the learner. In addition, these clear learner outcomes help determine the audience.

Develop Appropriate Staff Development Activities and Conduct a Needs Assessment
All staff development must be designed to adhere to National Staff Development Standards and adult learning principles. Staff development must include needs assessments which clearly identify developmental levels. In this model three stages of development have been identified: Awareness, Early Use and Routine Use.

Conduct High Quality Staff Development
Staff development must be research based and be provided through a variety of delivery systems which include job embedded strategies. These activities meet the content, context and process standards as identified by the National Staff Development Council.

Institutionalization of the Initiative
Staff development must establish and support teaching communities. All staff development activities will include follow-up and feedback. The expectation of this model is that all-new knowledge; strategies and techniques will be institutionalized in the classroom and lead to improved student achievement.

Continuous Improvement Loop
Staff development must be continuously evaluated for its effectiveness and redesigned to meet the needs of the individual learner and the organization

- When the new knowledge, strategies, and techniques are institutionalized in the classroom then student achievement data is analyzed to determine if students improved.
- If the new knowledge, strategies, and techniques are not institutionalized then barriers prohibiting institutionalization are identified and support provided. Once new knowledge, strategies, and techniques are institutionalized the data is reviewed.

Professional Growth Plan

Broward Schools' **Professional Growth Plan (PGP)** is the district response to the State's call to have *all* instructional personnel engaged in meaningful staff development activities that directly relate to gains in student performance. This Professional Growth Plan is **teacher directed**, and focuses on Sunshine State Standards, subject content, teaching methodology, technology, assessment and data analysis, classroom management, and/or school safety.

Note: Whenever the Principal identifies a teacher performance deficiency, a **Professional Development Plan (PDP)** must be completed according to IPAS guidelines. In that case the Professional Development Plan *replaces* the Professional Growth Plan.

Requirements of the Legislation

- Each teacher must have a professional growth plan which must align staff development activities with student and instructional personnel needs
- The Principal must measure the extent to which each staff development activity accomplished the student performance gains as predicted by the teacher

Professional Growth Plan (PGP) Timeline

September

- PGP database sent to schools and centers for input
- Video regarding PGP broadcast by BECON
- Technical Assistance provided to schools

September 1 – October 15

- Administrator meets with each teacher to review and concur with page 1 of PGP
- Teacher completes the designated needs assessment instruments to determine specific staff development needs related to target area goals
- Administrator and teacher sign page 1 and the Administrator retains a copy of page 1.
- Data entry of page 1 information for all teachers is completed by Data Entry Inservice Facilitator
- Completed databases are sent to HRD for compilation
- Staff development needs of teachers is determined from the data and disseminated throughout the district to guide the offerings of staff development

October 15 – May 15

- Teachers maintain their own activity logs - page 2 & 3 for the staff development they attend

May 15 - May 31

- Administrator meets with teacher to review and verify results of student performance gains and staff development impact.
- Administrator and teacher sign page 4 and the Administrator retains a copy of page 4.
- Data entry of page 4 information for all teachers is completed by Data Entry Inservice Facilitator
- In addition, data is imported into the PGP Companion database for the purpose of rating the effectiveness of staff development
- Administrators review data and evaluate staff development activities at their site

June 1- June 15

- PGP and PGP Companion databases sent to HRD for compilation

July-August

- Master list of effective, ineffective and "needs change" staff development is developed for use the following year when determining staff development activities for instructional personnel
- Staff development "needing change" is reviewed and modified
- Staff development rated ineffective is eliminated from the offerings in the district and replaced with effective activities

Professional Growth Plan Procedures

Target Areas- Page 1

The first element of the plan requires a teacher to identify a "student achievement gain expected". This part of the plan has been part of the IPAS process for several years. The PGP adds a section on Target Documentation Instruments. This section pertains to how a teacher will determine achievement of the target area. It can be accomplished through norm-referenced and criterion-referenced standardized test results where available and **at least one of the other** following assessment strategies selected by the teacher such as student performance demonstrations, teacher observation or portfolio of student work. Where the above referenced standardized student tests are not available, the Principal will select one of the other assessment strategies available. Teachers must select **two** target areas, which should be aligned with their School Improvement Plan, Student Achievement Data, Annual School Report, or Performance Appraisal data. The Target Documentation Instruments will be used to determine achievement of target areas by May 15 as part of the Evidence of Results (see page 4).

- **Teacher Needs Assessment Instruments**
  A variety of data sources can be used to identify skills, knowledge, attitude, or performance improvement needed to meet the IPAS target areas. The menu includes Essential Teacher Knowledge Inventory, Classroom Observation Rubric, IPAS form, FPMS instrument, Accomplished Practices checklist, student achievement data, etc.

- **Teacher Knowledge**
  The teacher checks the area(s) of knowledge identified in the needs assessment as it relates to the target area goals. This identification will facilitate the selection of the most appropriate staff development activities for maximum improvement in the teacher's ability to impact student achievement. The data from this section is used to determine target audiences for staff development offerings.

- **Signatures**
  The teacher reviews all sections of page 1 of the Professional Growth Plan with the Administrator. The teacher signs and dates page 1. The Administrator reviews and concurs with the teacher's area(s) for professional growth, and signs the plan.

Activity Log – Pages 2 & 3

The teacher completes an activity log for *each* of the target areas listed on page 1. The expected Teacher (Learner) Outcomes and Staff Development Activities section of the log should be completed *prior to* participating in any staff development activity.

- **Teacher (Learner) Outcomes**
  Based on the Teacher Needs Assessment, teachers indicate what they need to know and be able to do. These outcomes must be very specific, measurable, and observable.

- **Staff Development Activities**
  The teacher matches the Teacher (Learner) Outcomes to staff development activities that will enable the teacher to acquire the desired outcomes.
  The menu of activities includes study groups, action research, peer coaching, workshops, college courses, independent study, etc. The plan is teacher directed, thus allowing for professional choices to be made which support continuous growth.

- **Completion Date**
  The date the activity was completed.

- **Follow-Up/Feedback**
  Teacher describes the support that fostered implementation of what was learned. Support includes coaching, feedback from trainers and peers, follow-up from reading coach, team leaders, zone coach, and discussion groups (live or electronic).

- **Student Outcomes**
  As a result of the newly acquired knowledge and/or skills, what were the students able to do? These should directly relate to the expected student achievement gains on Page 1.

Evidence of Results – Page 4

Assessing the impact of the staff development is the primary concern of the new requirement. This component is designed to provide the administrator with data to determine if the staff development activities contributed to improved student performance. In addition, this section helps to identify additional staff development needs of the teacher.
Teacher completes page 4 and meets with the Administrator to review and verify results.

- **Student Performance Evaluation**
  Administrator and teacher review documentation instrument results for each target area, and verify whether expected student achievement gains have been met.
- **Staff Development Impact**
  This section is designed to provide the Administrator with data to determine if the staff development activities contributed to improved student performance. The most and least effective staff development activities attended by the teacher are noted in this section. In addition, the source of these activities and the delivery method are distinguished.
- **Signatures**
  The teacher reviews all sections of page 4 of the Professional Growth Plan with the Administrator. The teacher signs and dates page 4. The Administrator reviews and verifies these results with the teacher, and signs the plan. The data obtained from this process will be used to develop staff development activities based on what teachers identify as their needs, and to evaluate the quality of the existing activities to ensure they are affecting student achievement.

Evaluation of Staff Development Activities

There are three levels of evaluation of staff development activities. The first level is a process evaluation that the participant completes at the end of the training session. Using the activity evaluation sheet, each participant assesses the degree to which the objectives were addressed in the sessions.

Secondly, the initiation process as described in the *Results Driven Staff Development Guidelines* requires each individual activity contain an impact evaluation component. Each individual initiating staff development must specify how the application of skills learned or behavior change will be assessed. Using the evaluation design, each participant completes the analysis at the time the activity is closed. The activity closing date is a date after the participant has implemented the new knowledge.

This data is used to provide the trainer feedback on the effectiveness of the activity. A one page report of the results of the impact evaluations are submitted to HRD with closeout documents.

The third level of evaluation takes place as part of the Professional Growth Plan process. In this case, a holistic look is taken at the total impact of the teacher's plan. The teacher documents student achievement gains obtained from each activity and highlights the two most and least effective experiences. The teacher feedback is compiled for each site in a summary report. The administrator analyzes the data to complete a final evaluation of staff development conducted at the site.

All three levels of evaluation are used to modify individual activities as needed.

Florida Educational Leadership Standards[1]

Vision – High Performing Leaders have a personal vision for their school and the knowledge, skills, and dispositions to develop, articulate, and implement a shared vision that is supported by the larger organization and the school community.

Sample Key Indicators at the Entry Level:

- Can describe how to develop and implement a shared vision and strategic plan for the school
- Works with staff, students, and families to achieve the school's vision
- Can describe how instructional objectives, curricular goals, and the shared vision relate to each other
- Allows time for the achievement of goals
- Identifies needs that will be targeted in the shared vision and strategic plan
- Communicates the school's vision, mission, and priorities to the community
- Understands the basic concepts of the change process
- Is aware that external influences have impact upon the school
- Establishes plans to accomplish goals
- Relates the vision, mission, and goals to students
- Understands the effect of having a community of learners working together
- Articulates and reinforces the vision in written and spoken communications

Instructional Leadership – High Performing Leaders promote a positive learning culture, provide an effective instructional program, and apply best practices to student learning, especially in the area of reading and other foundational skills.

Sample Key Indicators at the Entry Level

- Sets annual learning gains, school improvement goals, and other targets for instructional improvement
- Uses data as a component of planning for instructional improvement
- Includes provisions in the instructional program for students with special needs
- Engages staff in ongoing study of current best practices
- Reads research, applied theory, and informed practice related to the curriculum
- Works to create high expectations and standards among the staff, teachers, and community members
- Relates content and instruction to the achievement of established standards by students
- Provides instructional leadership
- Is aware of research on instructional effectiveness and will use it as needed
- Demonstrates knowledge of student performance evaluation
- Has identified skills necessary for the planning and implementation of improvements of student learning
- Assesses the curriculum needs in a particular setting
- Works to relate state standards, the needs of the students, the community, and the goals of the school
- Understands the effect that a positive school culture has on student learning
- Recognizes differences in the staff's desire and willingness to focus energy on achieving educational excellence
- Identifies teaching and learning needs among the staff and teachers
- Communicates the instructional program to the community, the staff, and district personnel
- Models professionalism, collaboration, and continuous learning
- Understands and recognizes the benefits for students in:
    - balanced reading instruction
    - curriculum integration
    - active teaching and learning strategies
    - standards-based instructional programs
    - the use of technology for instructional purposes
    - aligning classroom assessments to standards

[1] Sample Key Indicators have been developed at three levels – Entry, Experienced, and High Performing. The Standards themselves are written at the High Performing Level. These Sample Key Indicators are focused on the competencies, knowledge, skills, and dispositions of the Entry Level Leader.

Managing the Learning Environment – High Performing Leaders manage the organization, operations, facilities, and resources in ways that maximize the use of resources in an instructional organization and promote a safe, efficient, legal, and effective learning environment.

Sample Key Indicators at the Entry Level:

- Administers policies that provide a safe school environment
- Has a plan for the accomplishment of strategic goals
- Manages the daily operations of the school
- Is aware of the various fiscal and nonfiscal resources for the school including business and community resources
- Manages the school to promote and encourage student learning
- Uses financial resources and capital goods and services to support school priorities
- Uses an efficient budget planning process
- Uses school resources to achieve curricular and instructional goals
- Understands techniques and organizational skills useful in leading and managing a complex and diverse organization
- Plans and schedules one's own and others' work so that priorities and goals can be met
- Conforms to legal and ethical standards in the management of the learning environment

Community and Stakeholder Partnerships – High Performing Leaders collaborate with families, business, and community members; respond to diverse community interests and needs; work effectively within the larger organization; and mobilize community resources.

Sample Key Indicators at the Entry Level:

- Understands how student and family conditions affect learning
- Identifies opinion leaders in the community and their relationships to the school
- Communicates the school's vision, mission, and priorities to the community
- Understands the effect that school image caused by impressions created by the students and staff and its use in promoting the school
- Uses shared leadership and decision-making model in the operation of the school
- Identifies resources of families, business and community members that could support the school
- Understands the benefits of having and using a variety of partnerships, coalitions, and network
- Establishes relationships within and external to the school
- Actively engages the community to promote student and school success
- Relies on agencies to connect students to the health, human, and social services they need to stay focused on learning
- Provides opportunities to involve family and community in a broad range of school activities

Decision Making Strategies – High Performing Leaders plan effectively, use critical thinking and problem solving techniques, and collect and analyze data for continuous school improvement.

Sample Key Indicators at the Entry Level:

- Establishes goals and targets
- Is developing a set of problem solving techniques and decision making skills
- Understands that events and problems can have a variety of explanations
- Can explain and defend decisions made
- Uses data to inform decisions
- Uses others to assist in the accomplishment of organization goals
- Supports student learning when making curricular and instructional decisions
- Has a problem-solving model to use when confronted with unsettled questions or undesirable situations
- Conforms to appropriate legal standards
- Makes decisions in a timely fashion using the best available information
- Provides opportunities to involve family and community in a broad range of school activities

Diversity – High Performing Leaders understand, respond to, and influence the personal, political, social, economic, legal, and cultural relationships in the classroom, the school, and the local community.

Sample Key Indicators at the Entry Level:

- Has skills necessary for interactive and interpersonal situations
- Understands how multicultural awareness, gender sensitivity, and racial and ethnic appreciation affect an educational organization
- Is able to interact with the various cultural, ethnic, racial, and special interest groups in the community
- Is aware of how the teaching staff provides for the diverse perspectives appropriate to the student population and school community
- Provides opportunities to involve the school community in a broad range of school activities
- Interacts effectively with diverse individuals and groups
- Conforms to legal and ethical standards related to diversity
- Is perceptive and tactful in dealing with diverse populations
- Recognizes when crisis communications are necessary and is building a repertoire of skills to deal with them
- Arranges for students and families whose home language is not English to engage in school activities and communication through oral and written translations
- Defuses contentious situations
- Has a plan for the hiring and retention of a diverse staff
- Has a plan to develop ways to improve relations with various cultural, ethnic, racial, and special interest groups in the community

Technology – High Performing Leaders plan and implement the integration of technological and electronic tools in teaching, learning, management, research, and communication responsibilities.

Sample Key Indicators at the Entry Level:

- Is aware of the technology, telecommunications, and information systems and their uses to enrich curriculum, instruction, and assessment
- Plans for technology integration for the school community
- Works with tech-savvy staff to plan for increased technology usage
- Models the use of technology as a tool in support of both educational and community activities
- Develops an effective teacher professional development plan to increase technology usage
- Has assessed and analyzed the extent to which technology has been integrated throughout the teaching and learning environment
- Within the available resources, increases access to educational technologies within and beyond the school
- Has a plan for the provision of support to increase the use of technology already in the school/classrooms
- Uses technology to support the educational efforts of staff and teachers

Learning, Accountability, and Assessment – High Performing Leaders monitor the success of all students in the learning environment; align the curriculum, instruction, and assessment processes to promote effective student performance; and use a variety of benchmarks, learning expectations, and feedback measures to ensure accountability for all participants engaged in the educational process.

Sample Key Indicators at the Entry Level:

- Uses data to assess and monitor school improvement
- Uses multiple sources of data to inform decisions and improvement processes
- Monitors and assesses student progress
- Monitors and assesses the progress of activities
- Demonstrates an understanding of the methods and principles of program evaluation
- Develops and demonstrates skills in evaluating instructional strategies and materials
- Understands how to use diagnostic tools to assess, identify, and apply instructional improvement
- Works with staff to identify strategies for improving student achievement appropriate to the school population

Human Resource Development – High Performing Leaders recruit, select, nurture, and, where appropriate, retain effective personnel, develop mentor and partnership programs, and design and implement comprehensive professional growth plans for all staff – paid and volunteer.

Sample Key Indicators at the Entry Level:

- Uses multiple data sources in working with teachers to plan for individual professional development
- Utilizes a variety of supervisory skills to improve teaching and learning
- Understands adult learning strategies useful for assisting staff in professional development
- Demonstrates an understanding of the methods and principles of personnel evaluation
- Operates within the provisions of each contract as well as established enforcement and grievance procedures
- Sets high expectations and standards for the performance of all teachers and staff
- Empowers others to achieve personal, professional, and organizational goals
- Connects professional growth plans and professional development to individual teacher and school learning goals
- Understands the processes necessary for use in the hiring and retention of high quality teachers
- Sets expectations that will ensure that all students are engaged in active learning
- Provides opportunities for teachers to think, plan, and work together
- Pursues improvement of his/her own professional development

Ethical Leadership – High Performing Leaders act with integrity, fairness, and honesty in an ethical manner.

Sample Key Indicators The Leader at Every Level[2]:

- Manifests a professional code of ethics and values
- Makes decisions based on the legal, moral, and ethical implications of policy options and political strategies
- Creates, models, and implements a set of values for the school
- Develops well-reasoned educational beliefs based upon an understanding of teaching and learning
- Understands ethical and legal concerns educators face when using technology throughout the teaching and learning environment
- Develops a personal code of ethics embracing diversity, integrity, and the dignity of all people
- Acts in accordance with federal and state constitutional provisions, statutory standards, and regulatory applications
- Demonstrates ability to make decisions within an ethical context

[2] Sample Key Indicators for Ethical Leadership is the same at all three levels. Ethical Leadership Standards are identical for all educational leaders.

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Staff Development Matrix 2005-2006- Instructional

Click on the Rolodex in the upper left corner to turn the pages.
Use scroll arrows to see the entire page.
Click on "continue" to go back to the opening, print or exit the program.

Title Of Event	Contact Person	Responsible Dept.	Specific Focus	Level(s):	Pts.	District Paid Stipend
Budget Concepts (Foundation Level)		HRD	LEAD	Elementary Middle High Sed Centers District	6	LEAD
School Improvement Process	Andria Sullivan	STRATEGIC PLANNING	LEAD	Elementary Middle High Sed Centers District	6	LEAD
DETA	Andria Sullivan	ED. PROGRAMS-CSDS	LEAD	Elementary Middle High Sed Centers District		LEAD
Data Analysis/ Data Driven Learning	Andria Sullivan	HRD	LEAD	Elementary Middle High Sed Centers District	6	LEAD
TERMs/ Scheduling/ Virtual Counselor/HRMS/ESS/CAB	Andria Sullivan	E.T.S.	LEAD	Elementary Middle High Sed Centers District	9	LEAD
Creating School Reports Using Easy IEP	Tara Rodger	ESE	District	Elementary Middle High Sed Centers	3	None
Fast Online Training For Approvers	Darlene Steinlage	SYSTEMS & PROCEDURES	District & Principals	Elementary Middle High Sed Centers	3	None

Content Area is Technology

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Staff Development Matrix 2005-2006- Instructional

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Title Of Event	Contact Person	Responsible Dept.	Specific Focus	Level(s):	Pts.	District Paid Stipend
DETA For Administrators	Jeanine Gendron	ED. PROGRAMS-CSDS	District	Elementary Middle High Sed Centers	30	None
Terms And FTE For Administrators	Jeanine Gendron	ED. PROGRAMS-CSDS	LEAD	Elementary Middle High Sed Centers	8	None
Electronic Gradebook For School Administrators	Jeanine Gendron	ED. PROGRAMS-CSDS	District	Elementary Middle High Sed Centers District	2	None
You're A Support Facilitator, Now What?	Sonia Aleman	ESE	District	Elementary Middle High	8	None
Collaborative Planning And Teaching For Administrators	Dorett Wade	ESE	District	Elementary Middle High Sed Centers	5	None
Collaborative Planning And Teaching For Administrators	Dorett Wade	ESE	District	Elementary Middle High Sed Centers	5	None
Collaborative Planning And Teaching For Administrators	Dorett Wade	ESE	District	Elementary Middle High Sed Centers	5	None

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Title Of Event	Contact Person	Responsible Dept.	Specific Focus	Level(s):	Pts.	District Paid Stipend
Sterling Immersion Training	Sema Marowits	CONTINUOUS QUALITY IMPROVEMENT/STRATEGIC PLANNING	LEAD	Elementary Middle High Sed Centers District	18	None
Preparing For Change: "what's New In Ged 2002"	Neeta Rancourt	ED. PROGRAMS-CTACE	District	District	10	None
Administering GED Programs	Neeta Rancourt		District		10	None
Administering GED Tests	Neeta Rancourt		District	District	10	None
Strategies Of Success In Florida's GED Programs	Nteeta Rancourt		District	District	10	None
Evaluating GEDprograms	Neeta Rancourt	ED. PROGRAMS-CSDS	District	District	10	None
Compliance And Implementation In Adult Ed Programs	Neeta Rancourt		District	District	10	None

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Click on "continue" to go back to the opening, print or exit the program.

Title Of Event	Contact Person	Responsible Dept.	Specific Focus	Level(s):	Pts.	District Paid Stipend
New SAC Chair Orientation	Judy Zinn	CONTINUOUS QUALITY IMPROVEMENT/ STR.PLG	LEAD	Elementary Middle High Sed Centers	2	None
Getting Organized For The New School Year	Judy Zinn	CONTINUOUS QUALITY IMPROVEMENT/STRATEGIC PLANNING	LEAD	Elementary Middle High Sed Centers	2	None
Implementation Of The School Improvement Process	Judy Zinn	CONTINUOUS QUALITY IMPROVEMENT/STRATEGIC PLANNING	Sac Chairpersons	Elementary Middle High Sed Centers	2	None
Data Driven Decision Making For SIP	Judy Zinn	CONTINUOUS QUALAITY IMPROVEMENT/STRATEGIC PLANNING	LEAD	Elementary Middle High Sed Centers	2	None
Needs Assessment For SIP	Judy Zinn	CONTINUOUS QUALITY IMPROVEMENT/STRATEGIC PLANNING	LEAD	Elementary Middle High Sed Centers	2	None
Waivers For SIP	Judy Zinn	CONTINUOUS QUALITY IMPROVEMENT/STRATEGIC PLANNING	LEAD	Elementary Middle High Sed Centers	2	None
School Improvement Process	Judy Zinn	CONTINUOUS QUALITY IMPROVEMNET/STRAEGIC PLANNING	LEAD	Elementary Middle High Sed Centers	2	None

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Click on "continue" to go back to the opening, print or exit the program.

Title Of Event	Contact Person	Responsible Dept.	Specific Focus	Level(s):	Pts.	District Paid Stipend
Creating The SIP On The Internet	Judy Zinn	CONTINUOUS QUALITY IMOROVEMENT/STRATEGIC PLANNING	LEAD	Elementary High Middle Sed Centers	2	None
Marketing Your School	Merrie Meyers-kershaw	COMMUNITY INVOLVEMENT	LEAD	Elementary Middle High Sed Centers	4	None

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Use scroll arrows , if necessary, to see the entire page.
Click on "Continue" to use the buttons to go Back, Print or Exit the program.

Title Of Event	Contact Person	Responsible Dept.	Level(s):	Pts.	District Paid Stipend
DETA DELIVERY METHOD: Workshop (Face-to-Face)	Andria Sullivan 321-5023	ED. PROGRAMS-INSTRUCTIONAL TECHNOLOGY	Elementary Middle High SED Centers District	3	LEAD
D E T A For Administrator DELIVERY METHOD: Workshop (Face-to-Face) Electronic Interactive (i.e. Distance Learning, On-line))	Jeanine Gendron 321-0475	ED. PROGRAMS-INSTRUCTIONAL TECHNOLOGY	Elementary Middle High SED Centers	30	None
Terms And Fte For Administrators DELIVERY METHOD: Workshop (Face-to-Face) Electronic Interactive (i.e. Distance Learning, On-line))	Jeanine Gendron 321-0475	ED. PROGRAMS-INSTRUCTIONAL TECHNOLOGY	Elementary Middle High SED Centers	8	None
Electronic Gradeboook For School Administrators DELIVERY METHOD: Workshop (Face-to-Face) Electronic Interactive (i.e. Distance Learning, On-line))	Jeanine Gendron 321-0475	ED. PROGRAMS-INSTRUCTIONAL TECHNOLOGY	Elementary Middle High SED Centers District	3	None

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Interim Assistant Principal 2005/ 2006 Staff Development Calendar
Point Person-Marci Lindemann

Workshop Title	BET #	BE #	Date	Time (s)	Location	Instructors	Phone	Supplies	Contract
Admin. + Media=Student Achievement (Media Program: New Dimensions)	10001074	10314255	01/10/06	4:30 –7:30	Rock Island Professional Development Center	Renee Schwartz	754-321-3320		
Admin. + Media=Student Achievement (Media Program: New Dimensions)	10001074	10314266	03/30/06	4:30 –7:30	Rock Island Professional Development Center	Renee Schwartz	754-321-3320		
Admin. + Media=Student Achievement (Media Program: New Dimensions)	10001074	10314244	11/02/05	4:30 –7:30	Rock Island Professional Development Center	Renee Schwartz	754-321-3320		
APAS/ IPAS	10052373	10333488	09/19/05	4:30 –7:30	HRD TR#2	Cathy Kirk Lyn Strong	954-632-1416		
APAS/ IPAS	10052373	10333534	10/17/05	4:30 –7:30	HRD TR#2	Cathy Kirk Lyn Strong	954-632-1416		
APAS/ IPAS	10052373	10333536	01/23/06	4:30 –7:30	HRD TR#2	Cathy Kirk Lyn Strong	954-632-1416		
APAS/ IPAS	10052373	10052373	04/03/06	4:30 –7:30	HRD TR#4	Cathy Kirk Lyn Strong	954-632-1416		
Budget for School-Based Administrators	50003671		10/10/05 10/12/05 10/17/05 10/19/05 10/124/05 10/26/05	3:30 – 6:30	McFatter Tech. Center	Pete Tingom	754-321-3068		
Budget for School-Based Administrators	50003671		1/23/06 1/25/06 1/30/06 2/1/06 2/6/06 2/6/06	3:30 – 6:30	McFatter Tech. Center	Pete Tingom	754-321-3068		
Classroom Walk Through	10184285	10321140	02/08/06	8:30 – 3:30	Boulevard Heights	Linda Pazos	754 323-6800		

Elementary Send Budget Transfer in amount of $250 to HRD.									
Classroom Walk Through (High School) Send Budget Transfer in amount of $160 to HRD.	10184285	10318469	08/23/05 10/04/05	8:30 – 3:30	Cooper City High	Katherine Hinden	754-323-0200		
Classroom Walk Through Elementary Send Budget Transfer in amount of $160 to HRD.	10184285	10318471	09/21/05	8:30 – 3:30	Dania Elementary	Kathleen DiBona	754-323-5350		
Classroom Walk Through (Middle School) Send Budget Transfer in amount of $160 to HRD.	10184285	10318470	10/11/05 11/15/05	8:30 – 3:30	Cooper City High	Katherine Hinden	754-323-0200		
Classroom Walk Through Elementary Send Budget Transfer in amount of $160 to HRD.	10184285	10321139	10/26/05	8:30 – 3:30	Boulevard Heights	Linda Pazos	754 323-6800		
Classroom Walk Through Elementary Send Budget Transfer in amount of $160 to HRD.	10184285	10318468	04/26/06	8:30 – 3:30	Dania Elementary	Kathleen DiBona	754-323-5350		
Decision Making, Problem Solving	10012714	10312801	04/4/06	4:30 – 7:30	HRD TR#3	Marci Lindemann	954-972-4435		
Decision Making, Problem Solving	10012714	10312798	11/21/05	4:30 – 7:30	HRD TR#3	Marci Lindemann	954-972-4435		
ESE: Critical	50003808	10318473	04/03/06	4:30 – 7:30	HRD TR#2	Lidia Yocum	754-321-2227		

Issues									
ESE: Critical Issues	50003808	10318472	11/15/05	4:30 – 7:30	HRD TR#3	Lidia Yocum	754-321-2227		
Field Trips Procedures						Mike Roland	754-321-1200		
FPMS	50003869	10333543	09/01/04 09/07/04 09/14/04 09/17/04	4;30 – 7:30		Cathy Kirk	954-632-1416		
How to Organize Time	50003909	10312804	04/27/06	4:30 – 7:30	HRD TR#3	Marci Lindemann	954-972-4435		
How to Organize Time	50003909	10312803	12/13/05	4:30 – 7:30	HRD TR#3	Marci Lindemann	954-972-4435		
IAP Meeting 2004 Learning Community			02/08/06	4:30 – 7:30	Piper High Mini Auditorium	TBA IAP Coordinator Terry Campanella	754-321-5052		
IAP Meeting 2004 Learning Community			04/20/06	4:30 – 7:30	Piper High Mini Auditorium	TBA IAP Coordinator Terry Campanella	754-321-5052		
IAP Meeting 2004 Learning Community			09/14/05	4:30 – 7:30	Piper High Mini Auditorium	TBA IAP Coordinator Terry Campanella	754-321-5052		
IAP Meeting 2004 Learning Community			11/08/05	4:30 – 7:30	Piper High Mini Auditorium	TBA IAP Coordinator Terry Campanella	754-321-5052		
IAP Meeting 2005 Magnet Programs			01/18/06	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator Mary Barrett	754-321-5052		
IAP Meeting 2005 Facilities Management			02/15/06	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator Pete Tingom	754-321-5052 754-321-3068		
IAP Meeting 2005 Expulsions			03/15/06	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator Pam Brown	754-321-5052 754-321-3002		
IAP Meeting 2005 School Reform Initiatives			04/26/06	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator Principal Elementary	754-321-5052		

						Middle High			
IAP Meeting 2005 Year In Review Community Involvement			05/17/06	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator Nina Randall	754-321-5052		
IAP Meeting 2005 Kick Off			09/21/05	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator	754-321-5052		
IAP Meeting 2005 NESS Overview			10/19/05	4:30 – 7:30	HRD TR #4	TBA IAP Coordinator Randy Deich	754-321-5052 754.321.5012		
IAP Meeting 2005 Working with the Gifted			11/16/05	4:30 – 7:30	HRD TR#4	TBA IAP Coordinator Caren Honigfeld	754-321-5052 754-321-1830		
Interaction Management	50003954	10321133	02/01/06 02/08/06 02/15/06 02/22/06	4:30 – 8:00	Pompano Beach High	William Bell Ronnie Glotzblach	754-322-2000	Req	Req
Interaction Management	50003954	10321122	09/12/05 09/19/05 09/26/05 10/03/05	4:30 – 8:00	Pompano Beach High	William Bell Ronnie Glotzblach	754-322-2000	Req	Req
Interaction Management	50003954	10321127	11/28/05 12/1/05 12/5/05 12/12/05	4:30 – 8:00	Pompano Beach High	William Bell Ronnie Glotzblach	754-322-2000	Req	Req
Internal Accounts Overview	10012854	10314276	04/03/06	4:30 – 7:30	HRD TR#3	Ken Shaw	754-321-2400		
Internal Accounts Overview	10012854	10314273	11/21/05	4:30 – 7:30	HRD TR#3	Ken Shaw	754-321-2400		
Referral/Classroo m Management	50004185	10321119	03/30/06	4:30 – 7:30	HRD TR#2	Marci Lindemann	954-972-4435		
Referral/Classroo m Management	50004185	10321116	11/29/05	4:30 – 7:30	HRD TR#2	Marci Lindemann	954-972-4435		
Risk Management Department	50004190	10312556	04/19/06	4:30 – 7:30	HRD TR#2	Eric Chisem	754-321-3204		
Risk Management Department	50004190	10312552	11/09/05	4:30 – 7:30	HRD TR#2	Eric Chisem	754-321-3204		
Sterling Immersion IAP	10251277	10321121	01/21/06 01/28/06	8:30 – 3:30	HRD TR#2 HRD TR#2	Sema Marowits Donna Young	754-321-1890		
Sterling Immersion	10251277	10321120	10/01//05 10/08/05	8:30 – 3:30	HRD TR#3 HRD TR#3	Sema Marowits	754-321-1892		

IAP						Donna Young			
Student Services: L Panel & C-26 Training	10094706	10321616	01/11/06	4:30 – 7:30	Wingate Oaks	Randi Burger	754-321-2122		
Student Services: L Panel & C-26 Training	10094706	10321668	05/10/06	4:30 – 7:30	Wingate Oaks	Randi Burger	754-321-2122		
Student Services: L Panel & C-26 Training	10094706	10321612	10/19/05	4:30 – 7:30	Wingate Oaks	Randi Burger	754-321-2122		
TERMS & FTE for Administrators	10130467	10324285	01/25/06	8:30 - 3:30	Wingate Oaks R125	Harriet Walters	754-321-0322		
TERMS & FTE for Administrators	10130467	10324283	02/08/06 02/15/06	4:30 – 7:30	Wingate Oaks R125	Harriet Walters	754-321-0322		
TERMS & FTE for Administrators	10130467	10324284	03/08/06 03/15/06	4:30 – 7:30	Wingate Oaks R125	Harriet Walters	754-321-0322		
TERMS & FTE for Administrators	10130467	10324276	09/7/05 09/14/05	4:30 – 7:30	Wingate Oaks R125	Harriet Walters	754-321-0322		
TERMS & FTE for Administrators	10130467	10324281	10/12/05 10/19/05	4:30 – 7:30	Wingate Oaks R125	Harriet Walters	754-321-0322		
TERMS & FTE for Administrators	10130467	10324282	11/09/05 11/16/05	4:30 – 7:30	Wingate Oaks R125	Harriet Walters	754-321-0322		
Threat Assessment	Determined	By need		4:30 – 7:30		TBA			
Threat Assessment	Determined	By need		4:30 – 7:30		TBA			
Threat Assessment	Determined	By need		4:30 – 7:30		TBA			
Understanding ADA/504	50004333	10322568	01/12/06	4:30 – 7:30	HRD TR#3	Dildra Martin-Ogburn	754-321-2150		
Understanding ADA/504	50004333	10322571	02/16/06	4:30 – 7:30	HRD TR#2	Dildra Martin-Ogburn	754-321-2150		
Understanding ADA/504	50004333	10322567	11/02/05	4:30 – 7:30	HRD TR#2	Dildra Martin-Ogburn	754-321-2150		

Union Contracts	50004335	Pending Completion of	Negotiations	4:30 – 7:30	HRD TR#	Dorothy Davis & Cathy Kirk	754-321-2140		
Union Contracts	50004335	10312561	10/03/05	4:30 – 7:30	HRD TR#3	Dorothy Davis & Cathy Kirk	754-321-2140		
Working with the Media in Crisis Situations	50004367	10318474	03/16/06	2:30 – 5:30	HRD TR#2	Joe Donzelli	754-321-2300		

Section VI -- Access

INTRODUCTION
Source: IT Blueprint, Section XI:Communications and Network Infrastructure, Oct. 28, 2004
2.0 BACKGROUND AND CURRENT STATUS

All high-performing information systems environments have common characteristics that set them apart from others. First and foremost, infrastructure/network design starts with the end in mind. Education and administrative management strategies drive the application strategy which in turn drives the data strategy, which in turn drives the hardware strategy, and finally, the network/infrastructure strategy. The overall architecture design is then implemented in reverse order, beginning with the infrastructure since it must be in place before the others will work. The district has implemented a capable and scaleable infrastructure design. The network infrastructure is physically ready to support the district but improved performance and better capacity planning must be addressed.

Strategic Issues

- BCPS has an excellent network design and topology within schools and departmens.
- BCPS has successfully deployed contemporary local area networks (LAN) at its schools and administrative facilities. The LANs are of excellent design and high performance. They have additional capacity that can be utilized for additional school applications.

Data Infrastructure

- There are over 130,000 devices (workstations, mainframes, minicomputers, and servers) connected to the network.

  Literally tens of thousands of devices are connected to the data network and include the IBM mainframe, AS/400's, Windows servers, Apple servers, Internet connection, PC and Macintosh workstations, network printers (stand-alone printers are against policy), laptops, wireless access points, videoconferencing, PDA's, and multifunction printers. The connections are via network interface and network management cards. There are approximately 110,000 (75% Macintoshes) desktop devices in the total BCPS network, and over 20,000 other devices (mostly printers).

Communications Infrastructure

The LANs are connected to a district "wide area network" (WAN) that is provisioned and managed by BellSouth. This network is designed on T1 circuitry that is contemporary, reliable, and cost effective. The district is migrating to Metro Ethernet.

Internet access is provided through a single access point and interfaces with the Florida Information Resource Network (FIRN). The district generates nine million Internet access requests per day.

The district provides access to the Internet for educational and administrative purposes. The district also provides appropriate controls to prevent students and employees, etc., from accessing inappropriate sites. This is controlled through the district's centralized "filtering" server to the Internet that ensures that the district is compliant with the Child Internet Protection Act (CIPA).

Voice services are extensive.

The district currently uses BellSouth for its voice services. This network is a separate infrastructure that connects to PBXs in school and administrative offices district-wide. The PBXs are Coral Integrated Services Business Exchange (ISBX) systems from Tadiran Telecommunications, Inc. This network is highly reliable and can accommodate over 30,000 telephones in the district; 20,000 telephones are used in the district today.

BCPS began a conversion from Metropolitan Community Services architecture to Centrex in June, 2003. The total conversion will take about 18 months and include all sites and about 30,000 phone numbers. This conversion will save BCPS approximately $1 million per year. The conversion cost is approximately $1 million for a one year payback.

6.1

Equitable and effective access to telecommunications and other technologies to support teaching and learning by:

- Providing for the equitable distribution of resources to support achievement of the Sunshine State Standards;
- Providing access for teachers, parents, and students to the best teaching practices and curriculum resources through technology;
- Providing access for students with special needs including those students with disabilities;
- Providing appropriate access to external instructional service and programming providers, such as public libraries, charter schools, remote teaching sites, home school connections, online products and other services; and
- Providing access to information for decision-making by teachers and administrators.

Technology Utilization



A high-speed and reliable WAN infrastructure enables the district to employ multiple options to distribute technology utilization strategies to teachers. These strategies include digital content selection guidelines, successful integration strategies, technology-supported programs, and models for addressing the needs of at-risk students from pre-K through grade 12. Digital content-selection guidelines that are designed to assist teachers in the selection of technology-based resources and are differentiated by instructional levels and content area will be reviewed and updated regularly. Staff development linked to selection guidelines will be designed and offered.

Strategies for creating effective blended technologies learning environments will be documented and disseminated (print and electronic). These strategies include the use of alternative desktop computing devices, such as portable writing keyboards, graphing calculators, laptop, and portable computers. Teachers who have used these devices and are willing to work with others will be identified to facilitate effective integration into classroom activities. This mentoring will be provided remotely via e-mail.

Access to district instructional technology resources may be increased by promoting partnerships with childcare service providers offering before-school, after-school, and weekend programming for BCPS students.

Access, Equity, and Critical Mass

Access

BCPS leadership understands the importance of providing access to resources and information to all individuals within the district. It acknowledges the need to attain equity with respect to the quality of services and resources it offers as part of the learning environment.

Likewise, it realizes the need to achieve critical mass in learning technology resources to provide on-demand access for all BCPS learners.

Acquisition and management of technology resources address both access and equity issues. *Access* refers to the students' ability to use instructional technologies to enhance/support learning about and with technology. Access is linked to several important variables:

- the number of computing devices (generally evaluated in terms of a student-to-computer ratio)
- the location, configuration, and scheduling of technology resources
- the mobility and flexibility of selected technologies
- the use of networking and/or telecommunications to transcend classroom and school geographical boundaries
- the proficiency of teachers and administrators who can support technology integration and guide instruction

Access is a challenge for multiple audiences within BCPS. Educators require access to information and resources to make instructional decisions that allow their students to improve their academic achievement and attain adequate yearly progress (AYP). Administrators require access to information and resources so that they can better report, manage, and evaluate student data. Learners require access to information and resources to acquire content knowledge, information literacy, and 21st century skills.

Equity

Equity deals with the funding approaches and decision-making processes by which schools acquire and use instructional technology resources and the fair and equitable distribution of those resources.

The efficient acquisition and management of technology resources will help ensure that:

- schools attain computing devices that meet or exceed district standards
- all students have access to current, appropriate, and sufficient information resources
- existing resources are used to their maximum potential so that future dollars are spent in areas of greatest need
- all schools attain a sufficient infusion of instructional technologies to attain district goals through local implementation solutions
- strategies are employed to engage all learner populations

With respect to addressing equity in learning issues with specific learning populations, best-practices research substantiates the following technology integration strategies:

- the use of project-based learning to engage girls in attaining information literacy skills (refer to section II, Chapter 1.2 on Project Based Learning to address gender issues) [8]
- the integration of digital video production to engage multiple voices and representations of students in the process of learning science [9]
- the use of adaptive/assistive devices and universal design models to provide equitable access to digital content for all learner populations
- activating operating system (OS)accessibility features available in Windows, Mac OS, and Linux including:
  - accessibility wizard
  - screen and audio magnification
  - screen contrast
  - display
  - text-to-speech
  - voice/speech recognition
  - visual alerts
  - audio alerts
  - stickykeys
  - repeat/filter keys
  - mouse
  - mousekeys
  - shortcut keys
  - serial keys

BCPS currently employs or is actively investigating a number of strategies to improve and increase access to technology resources (many of these strategies are described in greater detail throughout the *Information Technology Blueprint* sections). Examples of these strategies include:

- investigating thin client options (Section IV. *School Facilities and Learning Environments*)

[8] Yerrick, Randy, Dorna Ross and Philip Molebash. "Promoting Equity with Digital Video." Learning & Leading with Technology Vol.31, No.4 (December 2003/January 2004): 16-31.

[9] Yerrick,16.

- investigating alternative computing devices (Section IV. *School Facilities and Learning Environments*)
- developing technology access points within the community (in schools, public libraries, community organizations, such as boys/girls clubs) for after-school and weekend access to technology resources (Section IV. *School Facilities and Learning Environments,* and Section XII. *Community Access and Participation)*
- investing in Web-based applications that require only Web-browser software for access and use
- refurbishing and recycling older computers into the homes of Broward families

Plan 4 in BCPS established a baseline technology standard of two computers per classroom, a shared printer between every two classrooms, and laptops for teachers. Each school was to purchase two more workstations per classroom, but this goal has not been realized in all classrooms.

Critical Mass

BCPS seeks to review, define, and embrace approved "critical mass" configurations for classrooms and learning environments at all levels. Critical mass is defined as that level of technology infusion sufficient for measurable gains in student performance.

Reaching critical mass in technology resources for BCPS means that over the course of the next three budget cycles, student-to-computing device ratios will reach the following:

- grades K to 5–2:1 providing on-demand, one-to-one access within the school environment
- grades 6 to 12–1:1 providing 24/7 one-to-one access
- 15 computers per elementary school information and technology resource center
- 30 or more computers per secondary school information and technology resource center

The district continues to analyze and monitor current school and local progress toward critical mass, using an inventory database populated by

information from inventory surveys conducted annually. The survey instrument will ultimately become a Web-based data-gathering tool coupled to a district-wide online inventory database with electronic search capabilities in each school office. School and district-level reports will be created from both the inventory database and a fixed assets management system that depicts the distribution of quality resources, provides schools and local districts with comparative data, and flags inequities. The deployment of assistive/adaptive devices for special-needs populations is included in analysis and reporting procedures. The task of auditing and monitoring equitable access to technology resources will be assigned at the local level.

Without attaining critical mass of technology resources accompanied by training, support, building-level leadership and vision, and effective planning, the district may realize limited measurable gains in student performance from implementation of the BCPS strategic and technology planning efforts. Accordingly, the district will develop a master procurement/allocation plan for achieving the goal of one computing device for every student, the equipment to be located predominantly in classrooms and the information and technology resource center while it upgrades or replaces obsolete equipment.

District leadership has expressed the need to expand home/school communications as well as availability of educational resources through electronic linkages to families with access from home, community locations, and libraries. The district is considering the implication of acquiring these resources and seeks to determine appropriate instructional resources to be made available for after-hours student community access. Web-based strategies for community access and dissemination will be developed. Community information and resources are being developed in several languages to target the BCPS adult community. Availability of information and educational resources as well as directions for access will be publicized. Initially educational resources will target literacy skills.

It is important to recognize that in highly effective learning environments, one-to-one student–to–computer access is often a requirement. The ratios stated above do not imply a distribution strategy or any specific configuration. A blend of desktop computers, portable computers, tablet computers, hand-held computers, calculators, and other alternative computing devices may add the mobility and flexibility to bring on-demand 1:1 access into classrooms as needed.

Workstations are not the only critical mass components. As outlined in the report by the Digital Natives Committee, Table 3-1 below shows the critical mass for a variety of equipment for typically sized elementary, middle and high schools. Adjustments will be made for schools significantly larger or smaller than average for the level.

The average school sizes for BCPS are:

- elementary schools (preK-5) average 902 students
- middle schools (6–8) average 1,525 students
- high schools (9–12) average 2,630 students
- special centers average 416 students
- charter schools average 498 students

Table 3-1. Critical Mass

Area	Unit of Measure	Elementary	Middle School	High School
Classroom Technology				
Laptop	per Student		1.0	1.0
Middle School Device	per Student		0.2	
Elem. School Device	per Student	0.5		
Primary School Device	per Student	0.5		
Laptop	per Teacher	1.0	1.0	1.0
Color Scanner	per Classroom	1.0	1.0	1.0
Digital Camera	per Classroom	1.0	1.0	1.0
Ceiling Mounted Projector	per Classroom	1.0	1.0	1.0
Interactive White Board	per Classroom	1.0	1.0	1.0
Mounted Speakers/ Sound system	per Classroom	1.0	1.0	1.0
Media Control Panel	per Classroom	1.0	1.0	1.0
Printers-networked Colored Laser	per Classroom	1.0	1.0	1.0
Recharger Cart	per Workstation	0.05	0.05	0.05
Telephone Instrument	per Classroom	1.0	1.0	1.0
Staff Development	per Teacher	1.0	1.0	1.0
Other equipment upgrade/replacement	per Classroom	1.0	1.0	1.0
Information and Technology Resource Centers				
Library Workstations	per School	15.0	30.0	30.0
Advanced Multi-Media Workstations	per School	1.0	3.0	6.0
Telephone Instrument	per School	1.0	1.0	1.0

Area	Unit of Measure	Elementary	Middle School	High School
File Server for media storage and distribution	per School	1.0	1.0	1.0
Distance Learning Classroom	per School	1.0	1.0	1.0
Video Production & Broadcast Studio	per School		1.0	1.0
Offices				
Workstation	per Administrator	1.0	1.0	1.0
Laptop	per Administrator			
Workstation	per Instructional Support Staff	1.0	1.0	1.0
Workstation	per Non-Instructional Support Staff	1.0	1.0	1.0
Telephone Instrument	per Office	1.0	1.0	1.0
Printers-networked Black/White Laser	per Office	1.0	0.5	0.5
School				
Wide Area/ Internet/ Telephone Connections	per School	1.00	1.00	1.00
Wireless Infrastructure	per School	1.00	2.00	3.00
Wired Infrastructure	per School	1.00	1.20	1.40
Telephone/Voice Mail System	per School			
Sheet Feeding Scanner	per School	1.0	1.0	1.0
Large Screen Projectors	per School	1.0	1.0	1.0
File server for networked services	per School	1.0	1.0	1.0
File server for storage/printing	per School	1.0	2.0	3.0

The tables provided present rough guidelines for determining the critical mass of technology needed for a school overall and also for budgeting. It is not intended to dictate the distribution or placement of resources within a school or to suggest that more than this level of technology is ineffective or unnecessary. To meet class-size reduction targets, many schools are shifting existing computers from labs to classrooms, preserving labs when possible and appropriate to learning needs.

Existing technology will be replaced or refreshed when it no longer enhances the teaching and learning processes in classrooms and labs. Although not explicitly addressed, the deployment of assistive/adaptive devices for special-needs populations will be included, based on the populations serviced by the school and the dictates of Individual Education Plans (IEPs).

Internet Access

BCPS seeks to provide all learners within the district access to robust Internet resources from school, home, and community. Multiple variables present multiple challenges to this formidable target. These challenges include the differences in:

- response time between current infrastructure in facilities at elementary schools, middle schools, high schools, and technical centers
- electrical and network capacity found in older facilities versus newer construction
- network access and strategies in modular versus relocatable portable classrooms

In an effort to re-engage non-traditional students in learning, BCPS seeks to expand Internet access beyond the traditional school facilities. Sites to be integrated into our expanded vision include learners in:

- alternative schools
- hospitals and homebound settings
- the district's fourteen juvenile detention facilities
- magnet schools

Pew Foundation studies reveal that equity of access to the Internet, alone, both in school and from home–although critical to 21st century student achievement–is not enough to overcome disparities outside of the school environment. Students in all learner groups require explicit instruction on effective uses of the Internet, efficient search strategies, and appropriate interaction with and interpretation of Web content[10].

As BCPS achieves its goal of expanding Internet access to increasingly larger audiences, technology leadership faces the challenge of:

- implementing filtering strategies that comply with CIPA guidelines

[10]"Pew/Internet: Pew Internet & American Life Project." *Pew Internet & American Life Project A non-profit research center studying the social effects of the Internet on Americans*: http://www.pewinternet.org/ (Accessed April 2004).

- educating teachers about Web sites and strategies for identifying plagiarism in student projects, presentations, and papers
- educating students about appropriate documentation guidelines and online citation generators

Leonardo da Vinci said, "The apprentice who does NOT outstrip his master fails him." Broward educators must feel comfortable with and enabled to empower their students to become greater masters of the power and potential the Internet has to offer than they themselves may ever achieve. But it is critical that this mastery include use of such a pervasive resource in a responsible and accountable fashion.

SBBC Digital Divide Program

Purpose of Senior Management Presentation: To make Senior Management aware of the Digital Divide program and seek cross-departmental program alignment.

Background

Broward County Public Schools believes that technology positively impacts student achievement. As technology becomes more important in the lives of our students, strategies to address the "digital divide" in students' homes become increasingly more critical. Research shows that students who have home computers perform better academically and take higher level courses. Yet the "Connected to the Future" report from the Corporation for Public Broadcasting suggests the digital divide has not yet closed, and may potentially widen for some children. The digital divide is an important aspect to our school district because we have recognized the importance of digital media and instructional resources. In fact, a core element of the instructional technology plan focuses on web-based instructional resources for students and their families that will be available on a 24x7 basis. ***The Broward School Board is interested in developing a comprehensive "Digital Divide" program with a goal of eliminating the gap between those people and communities who can make effective use of information technology and those who cannot.***

District Beliefs and Technology Policy

Support for Digital Divide programs begins with the first belief in the district's strategic plan that states "Learning must take place at home, in school, and in the community." It is supported in School Board Policy 5306, item 4L, which states *"The broadest possible access to the School Board of Broward County's web based educational resources will be promoted, while providing safeguards to ensure that security is maintained. Towards this desired outcome, The School Board of Broward County, Florida, will support programs designed to bridge the Digital Divide."*

Compliance with School Board Policy and Florida Statutes

One component of the Digital Divide program is increasing the number of "first-time" home computer families by recycling surplus computers to eligible recipients. Computer recycling is grounded in School Board Policy 3202, "DISPOSAL OF SURPLUS AND/OR OBSOLETE PROPERTY," Rules of the Auditor General 10.400, and Florida Statute 274. These guidelines provide the ability to surplus computers off SBBC inventory and make them available to become the property of eligible recipients. To ensure program integrity, the district will develop a set of processes and procedures to guide the implementation of a comprehensive Digital Divide program.

Eligible Participants

The "Digital Divide" program aims to bridge the gap between those people and communities who can make effective use of information technology and those who cannot. Therefore, eligible recipients of recycled computers can be the family, community program, or school program of a student identified as needy. As an example, eligibility for free/reduced lunch is a frequently used criterion.

Digital Divide Program Goals and Objectives
The "Digital Divide" program has a goal of eliminating the gap between those people and communities who can make effective use of information technology and those who cannot. There are several objectives:

- To increase the number of "first-time" home computer families.
- To support and extend student programs.
- To increase parent participation and access to online resources.

In order to achieve the goals and objectives, the Digital Divide program will be a phased implementation following a Plan-Do-Study-Act cycle. The first initiative of the program that will be addressed is recycling surplus SBBC computers to eligible recipients.

Plan	Analyze the current procedures followed to surplus computers. Determine what procedural changes are required to existing procedures. Analyze options to refurbish and data cleanse computers to distribute them to eligible recipients.
Do	Align the resources, document the process and conduct a pilot.
Study	Evaluate the results of the pilot. Determine what can be improved. Identify additional resources.
Act	Implement the next phase with extensions as practical.

Computer Recycling Initiative
This initiative intends to refurbish surplus SBBC computers, configure them with educational and productivity software, and then distribute them to parents after they complete technology literacy training. Accomplishing this initiative will take planning and alignment of cross-departmental programs and activities. The computers will be data cleansed and have appropriate educational software installed. ETS will work with software vendors on "software re-licensing" agreements. Within the scope of this pilot, we will not focus on Internet connectivity although we acknowledge that it is a critical element for the Digital Divide program,

Title I Alignment for Pilot
We propose a pilot study that will focus on recycling up to 200 computers to families from Title I schools. National research shows a high correlation between family income level and the likelihood of owning a family home computer. Broward has 101 schools classified as Title I schoolwide programs. The 76 Title I elementary schools serve a total of 58,923 students with over 70%, a total of 41,287, qualifying for free or reduced lunch.

Next Steps: Digital Divide Program Governance
Upon completion of the pilot, the program results will be evaluated and reported as part of the "STUDY" component of PDSA. Moving forward with a continuous improvement process, it is anticipated that a Digital Divide Committee will be convened to provide program oversight and to provide input on the implementation plan. The Digital Divide Committee will have representation from appropriate stakeholders including technology, curriculum, auditing, capital assets, community involvement, and parent groups

Special Populations



The goal of the Elementary and Secondary Education Act (ESEA) has always been equity. Since its inception in 1965, ESEA has emphasized the need for all students, especially those at risk, to achieve to their fullest potential. This was seen in 94-142 Special Education legislation in the Improving America's Schools initiative[11] and continues to be the focus of NCLB. As currently implemented, NCLB adds the components of assessment and accountability into the "equity equation" for all Broward learners, including disaggregated and special populations.

Unique instructional strategies that incorporate technology-based solutions abound for students serviced in the district's special programs. These programs address the needs of students identified as at-risk, special education students, those students receiving Title 1 support, and students with bilingual and/or ESOL challenges. The largest special programs within BCPS include special education, bilingual education, and Title 1 programming.

Broward instructional leadership seeks to address the unique learning needs of all students within the district. Frequently technology solutions are a way to motivate and engage the disengaged student, level the playing field for the special education student, and challenge the gifted learner.

The subtopics included under this topic include:

- Students at Risk
- Special Education
- Bilingual and ESL

[11] "Public Law 94-142 (S.6): Education for all Handicapped Children Act of 1975." *Angelman Syndrome: Information for Families and Professionals*: http://asclepius.com/angel/special.html (accessed April 2004).

- Gifted Education
- Career and Technical Education

Students at Risk

At-risk populations are primary targets for ensuring regular access to technology resources and increasing technology use, as many of these students have limited, if any, access to these resources in their home environment. In the areas of math, science, and technology, virtually all girls are at-risk. To address this audience, BCPS will investigate programs such as CyberSisters, an innovative tele-mentoring program at the University of Oregon (Eugene-Springfield) and Oregon State University (Corvallis). CyberSisters is achieving success by focusing on the hands-on use of technology to promote girls' interests in science and math by pairing girls and university women who possess strong backgrounds in those areas. Research has also established best practices with girls, project-based learning (PBL), and technology.[12] Other such models exist for students at-risk of dropping out of school and for disenfranchised populations.

To encourage teachers who are most likely to interact with at-risk populations, technology resources will be:

- easy to access, set-up, and use
- in good working order
- portable, flexible, and robust to meet the unique needs of at-risk students
- engaging and exciting for students

BCPS will research and disseminate, via the district Web site successful strategies, programs, and models for addressing the needs of students at-risk from pre-K through grade 12 by:

- defining and identifying the district's at-risk populations
- determining criteria for selecting at-risk populations that can benefit from technology-enhanced interventions
- aligning technology-enhanced interventions with at-risk populations
- creating and disseminating assessment strategies to align individual students at-risk with the most appropriate intervention

[12] McGrath, Diane. "Closing the Gender Gap." Learning & Leading with Technology Vol.31, No.6 (March 2004): 28.

Title 1

Title 1 funds have been used from the outset to ensure that all students, regardless of their socio-economic background, attain reading literacy skills. These funds are targeted at young learners, often from urban and/or rural areas with low-socio-economic conditions that did not allow for the foundation skills critical to reading literacy. When learning technologies entered our primary classrooms, initially as drill and practice tools, many educators realized the potential for addressing reading literacy with Title 1 students. As learning technologies have evolved with respect to sophistication and diversity, a much wider offering of solutions is available to address reading and literacy challenges. Title 1 decision makers in BCPS will consider the following guidelines:

- technology support staff and technology resources need to be available to Title 1 students beyond the regular school day for research, remediation, homework, and project work; few if any have access to these resources in their home environment
- implement strategies, such as workshops and seminars for parents, to acquaint them with ways technology can enhance their children's reading literacy skills and their own learning.
- provide sufficient professional development and ongoing technology support so all teachers of reading are comfortable using technology resources to enhance reading and writing instruction
- investigate and offer online courses for reading teachers such as those by Classroom Connect; Holt, Rinehart and Winston; Pearson Professional Development; and Riverdeep[13]
- disseminate a listing of locations in the local community where students and parents can access technology
- provide access to technology through grants and donations of used and/or recycled equipment to parents of Title 1 students.

The identification of strategies to address the needs of Title 1 populations will be included in school improvement plans and will require the following:

- research-technology resources and technology-integration strategies that have proven effective in meeting the needs of Title 1 student populations
- dissemination of best practices and successful strategies in print and electronically via the district Web site

[13] Lafferty, Iris Obille. "Online Courses for Reading Teachers." Technology & Learning Vol.24, No.2 (September 2004): 16.

- monitoring and assessment approaches to evaluate the implementation and effectiveness of select strategies in BCPS schools

Special Education

Technology solutions and strategies assist both Broward teachers and students in the area of Special Education. To enable the academic growth and development of special education students a variety of adaptive and assistive devices/techniques are deployed to help "level the instructional playing field" for specially challenged learners. BCPS is in the process of broadscale implementation of EasyIEP by Public Consulting Group (PCG), a special education management tool, designed specifically to develop Individual Education Plans (IEPs), manage special education reporting and assessment requirements, and monitor student attainment of their individual goals and objectives. With EasyIEP the planning team for each child, that includes the parent, uses a laptop computer and projection device to create and/or update the annual IEP during the annual meeting allowing all to be actively involved in the process.

EasyIEP also has the capacity for parents to access their child's IEP and current status via the Internet in a password protected environment that allows viewing of only their child's information. Once means for the parents of special education students to obtain access to technologies that will enable them to reach the Internet are identified, this option will be advanced. (See section XII. *Community Access and Participation*)

To manage case loads some special education staff, many of whom are itinerant, use a FileMaker Pro database file to track which devices are assigned to individual students. The database tracks the following:

- description of equipment, vendor
- name and location of student using device
- status of use (trial, short term loan, long term loan)
- need/way in which device is being used

Special education leadership seeks a handheld computer based solution to replace this FileMaker Pro database that would link into the state database of all special education resources. This handheld solution would provide standard "pull-down" menus of choices and resources and enable the district and state to track the deployment of their adaptive and assistive resources.



The district's special education programming provides a diverse array of services to achieve the goals articulated in these IEPs for all special needs students. Adaptive and assistive technology resources continue to play a significant role in helping to equalize learning environments for special education students. Some of the technologies used to aid the educationally challenged student in the classroom include:

- text-to-speech programs that use a digital voice and read text aloud from software applications, e-books, or Web-delivered content
- word prediction applications that present up to nine different possibilities once the writer begins to type
- portable keyboards, alternative keyboards, and switches to simplify the mechanics of the writing process
- concept-mapping software that presents information, both in graphic and in outline format
- electronic manipulatives that are digital versions of objects used to demonstrate math concepts such as tangram blocks to create a design or dice to solve a probability problem

It has been demonstrated that students with learning challenges benefit when using technology-integrated strategies and resources as illustrated below:

- Students with attention deficit/hyperactivity disorder (ADHD) benefit from using multimedia, desktop publishing, outlining (such as Inspiration© or Kidspiration©), and word-prediction software to allow for divergent thinking while providing a resource to organize their thinking.

- It has been observed in students with behavior disorders that computer-based activities often provide motivation and tend to lessen acting-out behavior patterns. Word processing and word-prediction programs also tend to reduce stress and frustration levels during writing tasks in this student population.

- Students with oppositional defiance disorder and autism respond positively to the creation of micro-environments or mini-societies and movie production within the special education classroom. These activities are focused on the positive aspects of the student's lives, and demonstrate to the students that they are truly unique and extraordinary.

- The autistic student may benefit from being allowed to tape presentations instead of having to present them in front of a live audience. Keyboarding or taping to reduce the stress of touching pencils is also a successful strategy with this population. Text-to-speech and color-adjustment features may prove beneficial as

well as including computer-generated illustrations for presenting complex concepts.

- To help the hearing or visually impaired student compensate, assistive listening devices to increase volume and clarity as well as low-vision devices, such as big screens, text-to-speech, and large keyboards are available. Color and volume settings on the computer can be adjusted for higher contrast and louder sound output.

- Students diagnosed with emotional/behavior disorder (EDC) find that using word processing to write and revise written work helps to prevent outbursts. Graphic organizers may also reduce stress in the learning environment. Allowing these students to "discover" the wonder of software applications and content on the Internet can produce significant rewards.

- Strategies that focus on the ergonomics of the learning environment help the special-needs student with significant development delay (SDD). These strategies include positioning the computer low enough for the student's feet to touch the ground, placing the monitor at eye level, using a timer to practice sharing, providing headphones to eliminate distractions, adjusting control-panel settings for the mouse and keyboard, and securing larger keyboards for easier typing.

- Current Macintosh, Microsoft, and Linus operating systems are designed with control features for the visual display, audio feedback, text-to-speech that in the past needed to be purchased as add-on applications. These accessibility options can be grouped into the following categories: (1) solutions for visual impairments; (2) solutions for hearing impairments; and, (3) solutions for mobility impairments. [14]

Many school districts across the nation are embracing the universal access/universal design model which employs a proactive strategy to making print and digital content more readily accessible to special-education students and any other students experiencing learning challenges. The universal access/universal design model employs the following strategies:

- placing text-to-speech programs and other assistant applications on a select percent of all instructional computers in each school and designating them with a visual identifier

[14] Kimball, Walter H., Libby G. Cohen, Deb Dimmick, and Rick Mills. "No Special Equipment Required." Learning & Leading with Technology Vol.31, No.4 (December 2003/January 2004): 12.

- securing and/or scanning all school texts into digital format so that all students can read (with text-to-speech assistance if needed) grade appropriate textbooks in all disciplines
- ensuring that district Web pages adhere to federal accessibility guidelines for the visually impaired

Before a formal evaluation has been conducted, the universal access/universal design model provides educators with a number of interventions that can be tried immediately with any student experiencing learning difficulties and in some cases may provide all the remediation needed for that student to be successful. [15]

Many resources are now available for developing instructional materials and Web sites that embrace the universal design concept and include the following:[16]

- CAST, Center for Applied Special Technology at http://www.cast.org
- Bobby, get your Web site "Bobby Approved" at http://ww.cast.org/udl/Bobby215.cfm
- Web Content Accessibility Guidelines 2.0 0 at http://www.w3.org/TR/WCAG20
- Section 508 of the US Rehabilitation Act at http://www.section508.gov
- Designing for a More Usable World–for All at http:// trace.wisc.edu/world

Bilingual and ESL

The bilingual education dialogue, its effectiveness, onset of programming, duration of programming, and the determination of best practices continues at the national level. BCPS leadership will monitor this dialogue and the ensuing research that is being released from longitudinal studies in states, such as California and Texas. Trends continue to emerge regarding the role that learning technologies can and should play in the bilingual classroom. Some of these strategies:

- employ learning technologies that support authentic communication and intellectually challenging tasks in both English and the learner's native language (too often bilingual software has focused on drill and practice activities, rather than higher-order communication and thinking skills)

[15] Howard, Kirsten Lee. "Universal Design." Learning & Leading with Technology Vol.31, No.5 (February 2004): 26.
[16] Holzberg, Carol S. "Web Site Accessibility." Technology & Learning Vol.24, No.3 (October 2004): 48-51.

- ensure that computer-assisted language learning engages and interacts with students in a larger social context, including activities such as theme-centered, multimedia slide shows; electronic hypermedia books; and poetry
- develop a standardized, centralized bank of assessment tasks that are grounded in academic content standards and are specific to students with limited and/or emerging English proficiency. These tasks would focus on interrelated activities relying on graphic and visual content and orally delivered support, rather than on dense text. These assessment items would be used to determine the attainment of curriculum standards.
- incorporate technology to graph real-life data and explore relationships between data and graphical representations.

Using technology as a learning tool rather than primarily for drill and practice allows the bilingual student to develop language skills in relation to the computer and other 21st century digital tools.

In the area of bilingual education, BCPS will embark on a process of:

- researching national technology initiatives in the area of bilingual education
- recruiting colleges in the BCPS area to assist the district with conducting this research study locally
- expanding and implementing promising practices and successful strategies
- employing technology-enhanced strategies, where appropriate, to support instruction for the bilingual population and their families

Beyond the challenge of the regular classroom teacher, the bilingual technologist--the bilingual, technology-wielding teacher--must ensure that the experiences of bilingual students with computers are equal or superior in quality to those of monolingual students. The fact that many of these minority students face two barriers to learning and lifelong productivity–lower socio-economic background and limited English proficiency–demands that we integrate a wide variety of blended learning technologies into the bilingual classroom.

Gifted Education



Individualizing instruction for the gifted learner is as much the responsibility of BCPS as providing for the educationally challenged. The availability of teaching and learning

resources offered via the district network and/or from the Internet has significantly increased the options to teachers for addressing the needs of this audience.

Technology-supported strategies that address the learning needs of and challenge the gifted learner include:

- online college and university courses
- distance learning and virtual education Advanced Placement courses
- online activities, projects, challenges, contests, and competitions
- access to experts in all content areas (mathematicians, scientists, engineers, writers, musicians, artists, curators, lawyers, doctors) for assistance with research, review, recommendations
- individually paced ILS programs for advanced concepts and theory
- simulations for sophisticated discovery and exploration-based learning and problem-solving
- Internet-based data collection and research projects working with a global research team
- audio and video production capacity for students to express themselves through both music and visual imagery

Exceptional qualities appear in a wide array of areas and lay within each learner. Identifying that gift or talent and tapping into its potential to allow each individual to use it to its fullest advantage is the challenge for the educator of the gifted learner.

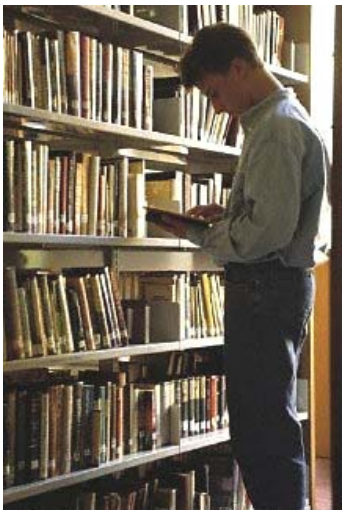
Career and Technical Education

Career and technical education programs have experienced an enormous transformation over the past twenty years from a hands-on curriculum that focused primarily on mechanical, manufacturing, carpentry, housekeeping, childcare, healthcare to a high-technology curriculum that employs technology tools and resources found in real world business and industry. Technology resources and the accompanying environments available for the 21st century career and technical student to attain critical life skills are numerous. Career and technical programs offer certification programs in automotive repair, cosmetology, childcare, allied health services, networking, computer repair, technology training, and computer programming.

Students within the career and technical academies are likely to experience the following technology-based environments:

Information and Technology Resource Centers

District leaders and library media specialists share a vision of transforming school libraries into a hub of information and technology access. In order for libraries to survive and grow into information and technology resource centers, the district seeks to reaffirm their critical importance. District-wide, these centers will also become a priority in the networking process and be upgraded with enough appropriate technology to enable them to provide Internet access and enable libraries to support voice, video, and data (electronic and hard copy) information resources. Additionally, while many of the existing libraries and media facilities have structural, electrical, and spatial constraints, new construction and renovations of older schools will place a high priority on creating such centers. BCPS libraries are not currently part of the refresh program, resulting in older technologies and outdated resources in some school libraries.



Most BCPS information and technology centers not only provide resources locally but also enable students and staff to access learning materials from across the country and the world. All centers are automated and have high-speed access to the Internet and will offer these components:

- locally warehoused books, papers, photographs, software, videos, and CD-ROMs
- electronic virtual library access systems, by which a user may transparently connect to remote libraries, databases, and other remote holdings by using the information and technology resource center's online system including the Florida statewide catalogue, Sunlink

Broward instructional leadership seeks to provide information and technology resource center materials in all schools that provide access to a developmentally appropriate array of digital and print content. Information and technology resource center staff seeks to play a pivotal role in helping teachers and students to attain Information Literacy skills and proficiencies. The subtopics included under this topic include:

- Library Management Systems
- Research and Information Literacy

Library Management Systems

In order to evaluate and refresh the current library management system, district leadership will review the following strategies:

- research and compare the current centralized system with emerging Web-based library management system
- assess the compatibility of the current system with district administrative systems, including purchasing, the student information system, and CD/IM
- update and refresh computers within school information and technology resource centers
- provide equitable access to students and staff to information available over the network (e.g., district learning resources, approved Web sites, Broward County's public library system, and accessible university library systems)
- develop and implement a plan and timetable for establishing a comprehensive media management system

The newest breed of library management systems is a centralized system that shares one common database throughout the district, replacing legacy distributed, site-based systems. Most of these centralized systems are Web-based, allowing access to the entire district collection from any district computer on the network with a current Web browser. The initial cost for centralized systems is projected to be high, but the total cost of ownership (TCO) will ultimately be lower than that of the older distributed systems. Centralized solutions reduce redundancy, are easier to maintain, increase reporting capacity, and provide easier access to

data that compares usage of collections across a district.[17] The current industry leaders in centralized systems share many of these common Web based characteristics, requiring only a Web browser for accessing the LMS:[18]

- use of standard formats for importing and exporting data
- SIF-compliant
- open-standards technologies such as SQL, ColdFusion, or XML
- no exclusive workstations on the network so that other applications may run simultaneously with the LMS
- access from other computers in the school
- generation of standard reports (collection size, circulation statistics, inventories, overdue notices, booklists sorting by various categories) and development of custom reports
- search of the OPAC and the Web simultaneously using a keyword search

In order for Broward libraries to be transformed into information-technology resource centers that support voice, video, and data (electronic and hard copy) information resources, their libraries require an automated and comprehensive library media management system that operates over the district's information-technology system.

BCPS ultimately desires to migrate to a comprehensive media management system. This comprehensive system will enable students, teachers, and administrators to access information resources over the network, search databases, reserve video resources, and request information sources. Key to the success of the 21st century information and technology resource center is its access from any workstation in any building via the network. Also, information-processing tools will be employed to transform information into more readily usable formats.

A district-wide library management system minimizes unnecessary duplication of holdings across schools, allowing individual libraries to develop specialized, in-depth collections. Electronically linking the entire district's collections would make valuable resources easily accessible to any student, teacher, or administrator. These strategies will ensure that students are able to:

- access electronic card catalogues and bibliographic databases within and among schools
- perform interlibrary loans, both among schools and with public libraries

[17] Broia, Rich. "Dewey or Don't We." District Administration Vol.40, No.1 (January 2004): 30.
[18] Schrock, Kathy. "Library Automation: A Buying Guide." Technology & Learning Vol.24, No.7 (February 2004): 9.

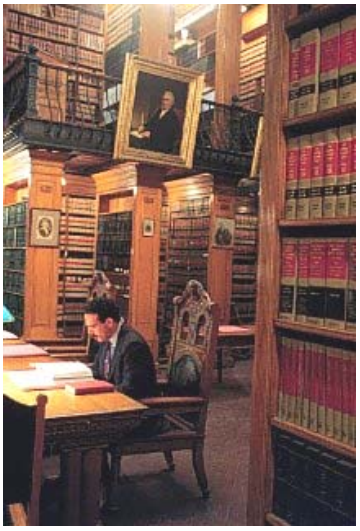
- access to databases within the school, at other schools, and at district offices
- access to digital resources (Encyclopedia Britannica, Grolier's, etc.)

Increased efficiency and accuracy can be incorporated into current cataloging processes. Books will be purchased that are ready to be placed on shelves along with accompanying cataloging information in electronic form. Where this is not possible, and for non-print items, a fully networked catalogue processing service will be implemented.

In addition to addressing automation upgrades and enhancements, the district will also focus attention on promoting effective information models, providing professional development, and sharing practices and resources.

BCPS information and technology resource center leadership seeks to:

- communicate to school leadership the important role of libraries as information and technology resource centers now and in the future
- provide school leaders with model configurations for technology-enriched learning environments for libraries
- ensure district-wide professional development plans and programs for school library media specialists and paraprofessionals to prepare them to manage technology-rich information resources, and help students and staff use technology as a research tool
- assess success and replicability of existing models, practices, and resources, and expand the use of successful programs
- design resources to be Web-enabled and accessible by all computers at all school sites, and as appropriate, from home and community centers



Broward schools will investigate strategies to negotiate site licenses with publishers for electronic versions of their books and other print matter. This will enable teachers and curriculum developers to access these electronic books and periodicals, and assemble customized, standards-based, teaching materials for use in the classroom. The district network has access to a variety of online databases, such as the Educator's Reference Desk for use by educators for professional development or classroom activities. Full text is available from many sources and can be stored on the local district server for easy access by school-building

personnel. Teachers and students have access to current news for research projects. With access to commercial news services, students will be able to search and browse over sixty newspapers, over 200 periodicals, and live news reports from sources such as the Associated Press.

Research and Information Literacy

Information Literacy Standards

BCPS has embraced the NETS•S standards that include competencies in technology use, technology integration, research skills, and data/information manipulation competencies. These information literacy standards, along with other nationally developed standards are included in Section II of this *Information Technology Blueprint* collection. The Information Literacy Standards for Student Learning were developed in collaboration with the American Library Association (ALA) and the Association for Educational Communications and Technology (AECT) in 1998. These standards include nine standards that are grouped into three categories. In 1994, the International Technology Education Association (ITEA) launched the Technology for All Americans Project (TFAAP) to advance student attainment of technological literacy. In 2000, ITEA published its twenty Standards for Technology Literacy (STL) that are grouped into five categories The 21st Century Learning Skills listed in the *Learning for the 21st Century* report, from the public-private coalition, the Partnership for 21st Century Skills (www.21stcenturyskills.org), identifies ICT (information and communication technology) literacy as a core element of their 21st Century Learning Skills. It is clear that school libraries will play an integral role in supporting the attainment of these information literacy standards.

Web/Information Literacy Programs and Strategies

One of the most popular information literacy models is called Big6. Big6 was developed by Mike Eisenberg and Bob Berkowitz and is one the most widely-known and widely-used approaches to teaching information and technology skills in the world.[19] It has been described as a meta-cognitive scaffold, or an information problem solving strategy. The Big 6 steps provide an essential framework to approach any information-based question.

The six steps include the following:

[19] Eisenberg, Mike and Bob Berkowitz. "Big6: An Information Problem-Solving Process." *Big6 Associates, LLC*: http://www.big6.com/ (accessed May 2004).

District and School Websites

Community members and the world at large have access to information about every school in the district through the Internet. Through the district's main Website, http://www.browardschools.com/schools/, community members can learn how to contact a school, get enrollment information, or download a copy of the School Improvement Plan. In addition, the district Website is linked to each school's own Website.

Virtual Counselor

The Broward County Public Schools have two examples of a best-of-breed, Internet–based programs that will be included as building blocks toward a comprehensive ID&C strategic plan: the BCPS Virtual Counselor and the Broward Education Communications Network's (BECON) Distance Learning programs.



Virtual Counselor is an important tool for students and parents since it brings the counselor directly to parents through online technology. Attendance records, test scores, class rank, and more can all be found online. Virtual Counselor is powered by the district's Data Warehouse.[6]

BECON

Using the Distance Learning facilities of BECON (Broward Education Communications Network), the district's television station, and the Internet, students are taking classes online and learning from experts in various fields through videoconference classes. BECON's Distance Learning programs consist of a virtual online component, a videoconference component, and Web-streaming.

Broward Virtual Education (BVEd), the online learning component of BECON is franchised from the Florida Virtual School. All courses are based on Sunshine State Standards, and the rigorous curricula are

[6] *411: January/February 2004 Issue.* On-Line Newsletter: Broward County Public Schools Intranet, http://www.browardschools.com/411/jan_04/page6.htm

directly linked to the benchmarks established by the Florida's Department of Education.

Distance Learning courses offered include elementary and middle school programs in diversity and FCAT preparation in reading, writing and math. Students and teachers in all grade levels participate in videoconferences with other students all over the world and take field trips to distant lands, tour museums, and visit other places of interest. Since November of 2001, Broward County students have been taking high school courses taught online by Broward County teachers. The number of students taking advantage of Broward Virtual Education (BVEd) continues to grow every day. For further information about BVEd, and how Broward County students are given the opportunity to learn and develop attitudes and skills necessary for success in the 21st century, refer to http://www.bved.net/bve/index.htm.

BECON's videoconferencing programs support the elementary, middle, and high school curricula as well as other special videoconferencing programs. From BECON's Website one follows links to the elementary and middle school academic classes that include lesson plans, class schedules, pictures, information, and teacher resources. The other special videoconferencing programs transform the classroom into an environment where interactive learning is extended into a world of global learning. Students participate in fieldtrips outside of Broward County, special programs, and special events.

BECON Distance Learning offers several types of video technologies, ISDN, IP videoconferencing, and Web-based conferencing that are clearly explained on its Website, http://www.bved.net/bvc/index.htm. Teachers, administrators, and other district personnel teach, learn, and conduct meetings using two-way, interactive videoconferencing available through facilities at schools and at BECON.

BECON Distance Learning Web-streaming capabilities include "Web-cast" programs, classes, and Broward Virtual Education courses for the desktop computer. State-of-the-art Web-streaming technology delivers TV-quality programming that can be viewed by many audiences at anytime on the desktop.

BECON Distance Learning is currently posting videos available for Web-streaming, many of which have an educational background. Web-streaming videos are available through http://www.bved.net/streaming/index.htm.

Alternative Schooling

BCPS is bound by law to provide alternative schooling services as an option to students in Broward County. BCPS currently supports several

alternative schooling options for its students. Connecting with any of these programs in ways that are legally viable can be both politically and fiscally profitable to the BCPS.

Charter Schools

Charter Schools were authorized by state statute in 1996 as an integral part of the state's program of public education. The statute defines how and why a Charter School can be formed. The statute states,"A charter school may be formed by creating a new school or converting an existing public school. The purposes of a charter school are to:

- improve student learning
- increase learning opportunities for all students, with special emphasis on expanded learning experiences for students who are identified as academically low achievers
- encourage the use of different and innovative learning methods
- increase choice of learning opportunities for students
- establish a new form of accountability for schools
- require measurement of learning outcomes and create innovative measurement tools
- make the school the unit for improvement"[7]

In addition, the statute establishes those who may submit proposals and limits the number of charter schools a district may establish. It also clarifies civil-rights related issues in order to accommodate any student residing in the district.

Hospital/Homebound

The Homebound Program is an essential service for children who cannot attend classes because they are medically fragile or by family preference. Individualized instruction in the home by a qualified teacher provides a foundation for the child's success in the future.

Seagull School: As part of the Broward County public school system, Seagull School is a center located in Fort Lauderdale, Florida, that provides services to a wide cross-section of students in the community. The four diverse and unique student populations include Teen Parent students, ESE (physically impaired) students, Teen Parent Babies (ages 2 weeks-5 years of age), and Hospital/Homebound students. Each student group requires its own special staff and accommodations.

[7] *Charter Schools in Florida, Section 228.056:* Florida Statutes.

The **Hospital/Homebound Program** at the Seagull School is a program for students who have a medically diagnosed physical or mental condition which confines them to home or hospital and whose activities are restricted for an extended period of time.

The mission of the hospital/homebound program is "to provide quality education for those students confined to home or hospital in grades pre K through 12. This is accomplished through a positive learning environment, emphasizing individualization, flexibility, modifications, and support structures in order to promote a continuum of learning experiences while facilitating the successful re-entry to their home school."

Each hospital/homebound student is assigned a home teacher, who "visits" the student at least once a week either one on one or via the telephone at a prescribed time (in a teleclass). The teacher, who is certified in a specific subject area, conducts the class with the use of visuals from work packets, videos, and textbooks. During these visits the home teacher will reinforce and assist a student's academic growth while monitoring tests, maintaining student records, and collecting written assignments.

Broward's telecommunications system currently provides 55 different secondary teleclasses and has the capability of serving as many as 15 students at a time in the same class. Historically, however, classes average fewer than the maximum (5-10 students.) This low teacher-student ratio allows students the opportunity to benefit from the more personalized learning situation. Students are graded on a daily basis, according to participation in the teleclass, exams, homework, and class assignments. Final exams for high school students are taken onsite at the hospital homebound office.

Complete information about the different instructional programs (one on one or teleclass) can be found on the Website http://www.firn.edu/schools/broward/seagull/hhbound.htm or by using the following contact information:

Hospital Homebound
1320 S.W. 4 Street
Fort Lauderdale, Florida 33312
Phone: (954)765-6446
Fax: (954)765-6476



Reasons For Maintaining TERMS

STUDENT INFORMATION SYSTEM

The School Board of Broward County uses an application called TERMS as its student information system. Originally licensed from Education Data Resources in the early 1990's, TERMS is arguably the most critical information system in the district as it generates a large percentage of the funding required to run the district from the State of Florida's Department of Education. The primary users of TERMS are the data processors in the schools who are responsible entering and tracking information about the students in their schools but school and district administrators also have access to TERMS.

From the start, TERMS was largely customized by both the vendor and district staff to suit the specific needs of Broward County. Vendor support was discontinued in 1999 and the application is solely managed and maintained by district staff. TERMS encompasses the basics of student information tracking with modules for demographics, health, attendance, schedules, grades, test scores, discipline tracking, etc. In addition, student intervention tracking, Broward Truancy Intervention Program (BTIP) reporting, automated promotion and retention, automated course forgiveness, customized report cards, local program tracking, and the extensive work done incorporating the Workforce Development Information System (WDIS) are some of the examples of local customizations that have been implemented in the TERMS system over the years.

Data from TERMS is loaded and updated nightly into the district's Data Warehouse. The Data Warehouse brings together data stored in TERMS with additional student achievement data from other sources such as third party testing vendors to present a complete history of the student in our county. In the recent years, as we have developed our ability to create web based applications, we are identifying ways to provide our customers with more integrated access to information that comes from multiple sources without having to give them access to TERMS, an integral day-to-day operational system. Virtual Counselor, a locally developed application, provides an easy-to-use web interface for students, parents, teachers and school administrators to access student achievement data stored in our Data Warehouse without impacting the performance of the TERMS system.

VIRTUAL COUNSELOR

Virtual Counselor is an easy-to-use web-based tool, developed by staff at Education Technology Services that enables students, parents, teachers and school administrators to access student achievement data stored in our Data Warehouse. Using their own login, students and parents can track progress towards high school graduation by accessing course transcript history, grade point averages, standardized test scores, service learning hours, and other graduation progress indicators as well as attendance, school assignment and schedule data. For teachers and school administrators, Virtual Counselor provides easy access to data they need to analyze school performance and customize the educational environment to meet the needs of their students. For example, Virtual Counselor allows teachers to view student test score information and have it linked to online technology based lesson plans aligned to the FCAT subtests for use in their classrooms.

With growing student populations, Virtual Counselor was primarily designed as a tool that would assist guidance counselors by automating some routine requests for students. Virtual Counselor allows students to look up information such as class rank, course grades, and test scores, freeing the guidance counselor to conduct meaningful guidance activities with their students. Virtual Counselor has also automated the course selection process across the county each year, where students use the curriculum guide of the school to review and select the courses they wish to take in the next school year. In the old process, students would review their selections with their guidance counselor and parents and then transfer those selections to a paper form that is used by the data processors to enter the information into the student information system. Allowing students to enter their own requests online via Virtual Counselor not only saves the time of data entry but also allow the guidance staff at a school to easily review and, if required, modify those selections as they meet with each student. Students are able to review four-year graduation plans based on career interest and view teacher recommendations to assist them in course selections. Students will be able to enter their course selections at school or from home. Once these selections have been approved by the guidance staff, the student will not be able to make changes. Checks are in place to ensure that all course requests entered by the students will be approved by the guidance staff before they are used in the computer scheduling process. Parents are be able to view their child's course selections online using their own Virtual Counselor accounts.

Many parents want to keep up – almost on a daily basis – with how well their child is doing in school. Gone are the days when parents had to rearrange their schedules to make an appointment to meet with a guidance counselor -- Virtual Counselor is the perfect tool because you can use it whenever you have the chance. All parents need to do is log on to **www.browardschools.com** and a few clicks later, they've got the info they're looking for. If they find something out of the ordinary, they can then schedule an appointment with a school guidance counselor. Virtual Counselor provides students and parents with the ability to become more actively involved in their progress towards high school graduation.

DATA WAREHOUSE

Broward County Public Schools has been operating a Data Warehouse for several years. From individual student performance data to multi-year comparisons of student groups, it's all in the warehouse. The Data Warehouse has dramatically changed the way Broward educates students and propels them to achieve beyond what was previously thought to be attainable. Warehouse use permeates nearly every aspect of reporting, monitoring, class management, test score improvement, and student counseling. What was once a data starved organization—is now data driven.

The focus of the Data Warehouse project is to provide district and school administrators and teachers with access to the kinds of student performance information they need in order to support individualized educational planning, instructional design decisions, and school improvement planning at the local school level. To accomplish this goal the district provides schools with multiple methods to access the Data Warehouse.

The first access method is through the use of the Data Warehouse School Report Folders. Accessible via the data warehouse website, these folders contain reports, stored in PDF format, that have been generated for each school. A district committee met during the 2001 school year to determine the layout of many of the student achievement reports that are placed in the school folders. This committee also developed a schedule for when these reports would be generated and posted to the school folders during the school year. To view these reports you need only to have installed Adobe Acrobat Reader, a free program, on your desktop. Each year reports are added and modified based on requests received from district and school administrators.

The second access method is for school staff to use our web-based report portal. This method provides access to the data warehouse through a web browser, without having to load any client software to your desktop. Becoming a web portal user is as simple as requesting a sign-on via the data warehouse website. An online tutorial provides all the training required and the plug-in for your browser is downloaded from the website upon initial login. Web portal users have the ability to run pre-designed web queries that generate school specific reports.

The third access method is for school staff to attend a training class that will teach them how to use the query software tool that is used to generate reports from the data warehouse. Once completed, this training will allow the user to download and install the client software to their desktop machine, MAC or PC. Users may run pre-designed query reports or create and generate reports of their own design.

Finally, Broward School's Virtual Counselor provides administrators, teachers, parents, and students with access to the data warehouse with only web browser. Providing by far the most user-friendly access, Broward's Virtual Counselor enables parents and students to take ownership of their educational records. High school students will be able to track valuable graduation progress information and register for courses online. Teachers are able to easily view student test score information and have it linked to online technology based lesson plans aligned to the FCAT subtests for use in their classrooms.

Here is a sample of some positive uses of the data warehouse in our schools today:

- Teachers reduce their parent-teacher conference preparation time and have more meaningful conferences by using Data Warehouse reports. In addition to the report card, these reports can be used as another measure of student performance and progress.

Teachers show parents historical test scores and discuss strategies with parents to strengthen areas of concern. Parents, as major stakeholders, have specific data on their children's needs that can be used in conjunction with the information available from the Data Warehouse.

- Given the intense pressure for schools to attain specified FCAT performance in order to receive funding, tracking students that are exempt from test taking is critical. At one school, it used to take 45 man-days to determine that list of students. In less than three hours, a report was built from the Warehouse that much more precisely identified exempt students.
- The Data Warehouse is used to catch behavior patterns while there is still time to use preventive measures to correct the problems from becoming more serious issues. The biggest example is the reduction in dropouts by monitoring absenteeism and test scores and using a variety of intervention services to keep students in school. Another example is the reduction in the number of students retained-in-grade. By proactively monitoring performance over years, students receive additional assistance to help them succeed at grade-level and avoid the stigma of being retained.
- Daily attendance district-wide is monitored via the Data Warehouse. Students lose their driving licenses if they have a specified number of unexcused absences. Students and their parents receive a warning letter as they approach that level. If they exceed the allowed absences, the state is notified. This effort used to require a lot of manual effort. The end result was an excessive amount of time and money spent on relatively inaccurate data and reports.
- District administrators were able to evaluate the effectiveness of "block scheduling" based on a detailed analysis of test scores, Advanced Placement test scores, grades and attendance. They determined that the block schedule did in fact positively affect learning.
- Another analysis compared results on outside vs. in-school remedial instruction. The relevant data for the in-school group was compared to those receiving more expensive outside assistance. It was determined that the in-school program provided comparable outcomes at a great savings to the district.

In addition to student achievement data, maintenance data is now being tracked in the Data Warehouse. Work orders and maintenance are tracked and reported on daily. Historical reports are created to look at staffing, money, and other issues that need follow-up. All maintenance work is tracked daily comparing estimated costs and time to actual costs and time. This gives the Maintenance Department a better picture of how the money is being spent, and insures that the schools get first priority on work orders.

Tangible benefits are difficult to enumerate in a public school district. Generally there is no dollar evaluation that can be made. One exception to this was a savings to the district of over $105,000 on reports for the students taking the Stanford Diagnostic (SDG) tests one year. Rather than paying an outside vendor, the student home reports were developed using the Data Warehouse.

The Data Warehouse continues to evolve. Each year new data tables are created and new reports are available providing fresh ways of analyzing school, teacher, and student performance. The School Board of Broward County's number one goal is that all students will achieve at their highest potential. The Data Warehouse helps meet that goal by providing the data required to customize the educational environment to meet the needs of every student.

WEB-BASED AND VIRTUAL/DISTANCE LEARNING RESOURCES

Web-based Resources

Instructional content in the classroom is no longer limited to textbooks, stand-alone software applications, and manipulatives. District-wide networks with broad bandwidth access to the World Wide Web have placed a wealth of digital instructional content at the fingertips of any teacher or student who knows how and where to access it.

These resources include the following:

- free education services, such as AOL@Schools, Microsoft and Apple education Web sites, that provide students with online learning resources, activities and templates, and teachers with lesson and unit plans that support state and national curriculum standards
- Web-based reference services for students, such as KidsConnect, Educator's Reference Desk, and Mad Scientist Network
- links to public, university, and government library collections
- primary source information through access to experts across the globe in various professions and areas of expertise

- access to vast collections of still pictures and motion videos, animations, and digital presentations on diverse subjects
- virtual tours of museums and historical sites around the globe such as the Smithsonian, Louvre, National Gallery of Art, and Colonial Williamsburg
- live "Webcams" throughout the world that permit students to view the activity within the canopy of a rainforest, the world of a panda bear, or corn growing in our nation's heartland
- online courses via distance learning services, businesses (e.g., Barnes & Nobles), and colleges/universities (many are offered for free while others include a subscription or enrollment fee)
- online learner productivity utilities including surveys, citation generators, and plagiarism checkers
- student research portals and tools including search engines
- Webquests and Web scavenger hunts are available for nearly every content area for all instructional levels
- online learning communities, such as Tapped In at http://www.ti2.sri.com
- online tutors, such as Think.com
- geo caching sites and other Web-based virtual and real treasure hunts

Distance Learning/Virtual Learning Resources

Program Offerings

For a large district such as BCPS with state-of-the-art resources, the distance learning classroom is one solution to address needs at both ends of multiple audiences. A distance learning classroom centrally located within a school can provide instruction for students, staff, and community in the following areas:

Student Instruction

- offer traditionally low enrollment courses, such as world languages including Latin and German
- conduct advanced placement (AP) courses as needed (math and science are popular)
- offer courses with national instructor shortages (Japanese, Russian)

- allow "students as teacher" opportunities with broadcasts from school to school
- provide students with opportunities to participate in global projects, attend real time events, and communicate with experts in the field

Teacher and Staff Development and Training

- secure nationally recognized speakers via satellite for professional development activities
- facilitate district discussions on local/regional/global issues
- broadcast town meetings and disseminate important information to the community

Videoconferencing

- minimize the need to travel among schools within the district for meetings
- facilitate curriculum development among staff at different schools or sites

VIDEOCONFERENCING

Purpose

The purpose of using videoconferencing is to enhance student achievement while providing additional learning opportunities over a broad geographical area. Videoconferencing provides for synchronous collaboration of information between participants locally, nationally, and internationally. A partial list of end-users that utilize distance-learning delivery methodologies include students, teachers, principals, media specialists, BECON, ETS, magnet programs, senior managers, staff trainers, human resource development, curriculum, program development, superintendent, department heads, area offices, collaborative colleges, and universities.

The migration is clearly beneficial not only in terms of operational costs of the teaching network, but also enables the school district to be more efficient by reducing travel time as well as other "soft" costs related to efficient use of time and associated travel costs. To date we already use this technology for many internal meetings and staff training which can be increased as the network expands. There are many other potential benefits to the community at large as by installing a robust visual/audio communications system in the school system one such example was the valuable link that the school district provided to emergency response teams within the county and for the State EOC and National Guard during the 2004 Hurricane Season that earned The School Board of Broward County a Florida Commendation Medal..

Access

Currently over 75% of all schools have a videoconferencing system on site. In order to provide equitable access and distribution of resources to support student achievement a plan is under way to provide the remaining schools with a videoconferencing unit over the next 3 years.

User Support and Professional Development

ETS has a technical support group, Quality and Customer Service/Conferencing Services, certified and trained by the equipment manufacturer to provide design, warranty, training, installation, technical help desk, as well as onsite- services. The technical support team incorporates state of the art remote diagnostic systems specifically designed for the large videoconferencing networks. This system is designed to maximize efficiency, labor, service, software updates and patches to enhance and provide a high quality of service. Additionally, highly qualified district personnel in this department are certified and trained in these technologies by the manufacture and as well as in conferencing bridging support services. Quality and Customer Service/Conferencing Services provides regularly scheduled training for district teachers, administrators, and other district employees in the use and operation of videoconferencing. Class participants are provided with hands on training and a hard copy of the training manual. The districts' Quality and Customer Service/Conferencing Services web site: web/cs/training.htm also provides online support, a Basic User Guide, a Troubleshooting Guide, and other useful online materials.

AUDIOCONFENRENCING

The Districts CISCO MeetingPlace audio conferencing system is used largely by the Hospital Homebound/Telecommunications Abeyance Programs of Seagull School. Seagull School conducts “Teleclasses” for students who are either too ill to attend school for an extended period of time, or those student s who have been expelled. During the 2004/05 school year Seagull’s teleclass program provided services to 584 students and conducted 3,624 classes for a total of 2,003,177 minutes of instructional time. The system is also capable to delivering collaborative data via a web browser, so that the participants are in discussions via the telephone, but also can see any documents, chart, pictures, drawings, or other programs the teachers wishes to share to enhance the learning experience. Through teleclass these student complete regular academic credit while unable to attend their regular school and upon return, are not as far behind the rest of their peers.

The District also utilizes the MeetingPlace audio conferencing system for the staff development of Principals, Teachers, and Support Staff at various locations. By utilizing this technology, staff is not required to leave their work location to attend training or meetings. This increases the amount of time staff can spend directly assisting students in the regular academics and improving student achievement and performance.

DISTANCE LEARNING

DEFINITION

Distance learning, an option different from the traditional classroom, takes place when space, time or both separate the teacher and the learner. Whether online through the Internet or through videoconferencing, distance learning offers educational opportunities that meet students' changing needs and grant them the flexibility of learning anytime, anyplace and at a pace that meets their individual learning styles.

RATIONALE

Broward Virtual Education (BVEd) is a franchise of and modeled on the Florida Virtual School. *The Florida School Code Rewrite took effect on January 1, 2003. In this revised code, PART II, STUDENT AND PARENTAL RIGHTS (s. 1002.20 (6a)), "Parents of public school students may seek whatever public school choice options that are applicable to their students and are available to students in their school districts. These options may include… the Florida Virtual School."* Through Broward Virtual Education, Broward County teachers and staff will serve Broward County public school students who take a course online.

RULES

I. PROVIDERS OF DISTANCE LEARNING

1. Providers, for the purpose of classifying transfer credits which meet specific graduation requirements and without further validation from Broward schools, shall be accredited by a regional accrediting agency or accredited through their state's Department of Education.

2. Broward Virtual Education will apply for CITA-SACS Accreditation.

II. ELIGIBILITY, REGISTRATION AND ENROLLMENT

1. Students, regardless of grade level, who are academically qualified to take a course for high school credit in a Broward County public school may use distance learning to take the same course, receive a grade to be averaged into the student's GPA and be granted high school credit when earned through the district or a district approved virtual provider upon completion of the course. No minimum GPA is required to take a course through distance learning. All prerequisites as determined by the school of record must be successfully completed prior to enrollment in a virtual course.
2. Online learning is an alternative to learning in a traditional classroom. It is not for every student. Characteristics that aid in the success of an online student are:

   - reading competency

   - time management skills

- intrinsic motivation
- self-discipline
- basic computer literacy

3. There will be ongoing registration throughout the calendar year for online courses.

4. Seats for the virtual classes will be allocated to the district schools through an equitable process.

5. A pool of virtual seats will be reserved for emergency situations and individual schools' innovative projects.

6. If the number of qualified, fulltime student applications exceeds the capacity of Broward Virtual Education, then a lottery system will be used to determine those students who will be accepted to the program.

7. Charter School students will be served at cost recovery.

8. At the discretion of the Principal at the student's school of record, distance learning courses may be selected by students who:

   - need to make up credits in order to graduate on schedule;
   - are seeking grade forgiveness;
   - are eligible for hospital or homebound programs;
   - want to take a course(s) not offered at their school;
   - have scheduling conflicts;
   - may need/want a learning environment different from that of a traditional classroom setting;
   - want to accelerate their academic program by taking additional courses to facilitate early graduation;
   - are excused from being physically present on the campus of their school of record for an extended period of time.

9. For online courses, parent, student and principal (or designee) must confer and agree that course(s) selected is (are) academically and developmentally appropriate for the student and that all prerequisites as determined by the student's school of record have been completed before the Registration Packet is submitted to BVEd.

10. An appeals process is provided regarding eligibility, registration and enrollment.

11. A student can drop an online course without penalty within a window of 14 consecutive days**.** A full-time student can withdraw from the virtual school courses without grade penalty within a window of 14 consecutive days and transfer to a traditional school. After 14 days, grades earned to the date of transfer will go with the student to the new school.

III. COURSES

1. All coursework is based on the Sunshine State Standards and meets the mandated benchmarks.

2. All courses must be compliant with the Americans with Disabilities Act (ADA).

3. The school of record must cooperate with the provider of Advanced Placement courses through distance learning with respect to the provision of Advanced Placement Examinations and their administration.

4. Online courses in progress must be indicated on the student's report card.

IV. CREDIT

One full credit or half credit earned as a result of instruction through distance learning is defined as the successful completion of course requirements.

V. INSTRUCTIONAL STAFF

1. Broward Virtual Education will follow the Broward County School Board procedures for hiring teachers and staff with the unique technological skills necessary to meet program requirements. All instructors are state certified in field.

2. The student/teacher ratios for distance learning teachers comply with the legislative mandate from the State of Florida.

3. The online teacher calendar will be 196 days with extensions as needed to a maximum of 241 days.

VI. STUDENT PROGRESS AND GRADES

1. A student enrolled in Broward Virtual Education may participate in online classes at the school of record, at home, in the public library or through other community agencies, wherever and whenever a computer with Internet access is available.

2. The district grading policy will be the same for distance learning courses as it is for courses taken in a traditional classroom.

3. The distance learning instructional teacher shall be the teacher of record and will report the student's progress to the student, parent, and principal (or designee) at the student's school of record at a minimum of the appropriate number of times

determined by Board Policy 6000.1.

4. Grades submitted by the distance learning teacher are the student's final grades and will be posted to the student's permanent record.

5. Guidance services will be provided by the student's school of record.

6. FCAT and Advanced Placement testing will be provided by the student's school of record.

7. ESOL, ESE and other special services will be provided by the student's school of record.

VII. NCAA ELIGIBILITY

The NCAA has approved all core courses for use in establishing the initial eligibility certification status of student athletes through the district's Broward Virtual Education.

Authority: *s. 1002.20 (6a)*
Policy Adopted 6/17/03



Broward County Public School students have the opportunity to take courses for high school credit taught online by Broward County teachers. Broward Virtual Education (BVEd) has franchised the award-winning program for online learning from the Florida Virtual School. All courses are based on Sunshine State Standards and the rigorous curricula are directly linked to the benchmarks established by the Department of Education. Broward County Schools will offer 35 regular/honors level, required and elective courses and 10 Advanced Placement classes for high school credit. 18 courses are specifically offered for middle school participation, grades 7 and 8. Students will learn at their own pace at school, at home, wherever they are, whenever they choose! Students may remain at their current schools and take courses as part-time BVEd students or may apply to be full-time virtual students in BVEd.

BVEd students use the Internet to participate in a learning experience quite different from the traditional school classroom. This alternative learning mode will provide access to students who are hospitalized or homebound for an extended period of time, teen parents, students away from their schools for various reasons, or students who want to accelerate their program or make up credits. No longer will students be limited to course offerings based on their chronological age or grade level. Readiness and competence will determine course placement. Course approval by the student's school guidance counselor is required.

Online students experience the most success when they are computer literate, self disciplined, motivated, and read on or near grade level. Although BVEd courses can be taken for grade forgiveness, they are rigorous and are not intended for remediation. One-credit courses are designed for 36 weeks of study and .5 credit courses for 18 weeks. Early in the course, students may request an accelerated pace to complete sooner for block schedules or an extended pace for additional time to complete the course. Through BVEd, Broward County students are given the opportunity to learn and develop attitudes and skills necessary for success in the 21st Century.



Broward Virtual Education
www.bved.net

The mission of Broward Virtual Education is to offer equitable access to high quality, individualized education, through the Internet and other distance learning technologies in Broward County. This virtual environment provides flexibility of time and location, and promotes development of the skills, the attitudes, and the self-discipline necessary to achieve success in the 21st century.

Broward Virtual Education believes:

- that students learn best when they, their instructors, family, peers, and community members interact as educational partners who can facilitate learning, and share responsibility for student success;
- that instruction should include a variety of assessment techniques that address various modalities, learning styles, and intelligence types that establishes both the pace and path by which each student learns best;
- that students are to be provided with qualified support services that assist them in making appropriate academic choices unique to their personal educational goals;
- that assessments should be used to ascertain student knowledge, monitor student progress, and allow for evaluation of the processes as well as the products of education;
- that students assume an increasing responsibility for their own learning.

Distance Learning, an option different from the traditional classroom, takes place when space, time or both separate the teacher and the learner. Whether through videoconferencing, online through the Internet, or facilitated by other means, distance learning offers educational opportunities that meet students' changing needs and grant them the flexibility of learning at any time, in any location and at a pace that meets their individual learning styles. This new and evolving use of technology assists in providing access to equitable educational opportunities for all students. Distance learning gives students greater responsibility for their own education by finding, evaluating, and using a wide range of resources available in the Information/Communication Age. Intellectual growth and acquired skills are demonstrated in a more authentic manner than by traditional methods. The attainment of these 21st century skills and attitudes is essential for students' success in the modern workplace.



2005-2006 Course Offerings

Course Name	Course Number	HS Credit
Business-Computer Technology		
Business Systems and Technology	8209020x	1.0
Web Design I	8207110x	1.0
Web Design II (New this year)	8207120x	1.0
Keyboarding **(Middle School)**	8200110x	-----
Computer Education		
Computer Programming - Basic 1	0201330x	0.5
Fine Arts		
AP Art History	0100300x	1.0
Orientation to Art 2-D**(Middle School)**	0101010x	0.5
Foreign Language		
Latin I **(Middle and High School)**	0706300x	1.0
Latin II **(Middle and High School)**	0706310x	1.0
Latin III	0706320x	1.0
Spanish I **(Middle and High School)** **(Wait list)**	0708340x	1.0
Spanish I I**(Middle and High School)** **(Wait list)**	0708350x	1.0
Health / Physical Education		
Personal Fitness	1501300x	0.5
Fitness Lifestyle Design (Personal Fitness is a prerequisite)	1501310x	0.5
Life Management Skills	0800300x	0.5
Language Arts		
English I / English I Honors	1001310x / 1001320x	1.0
English II / English II Honors	1001340x / 1001350x	1.0
English III / English III Honors	1001370x / 1001380x	1.0
English IV / English IV Honors	1001400x / 1001410x	1.0
AP English Literature and Composition	1001430x	1.0
AP English Language and Composition	1001420x	1.0
Language Arts III/ LA III Advanced **(Middle School)**	1001070x/ 1001080x	----

Mathematics		
Algebra I / Algebra I Honors **(Middle and High School)**	1200310x / 1200320x	1.0
Geometry / Geometry Honors **(Middle and High School)**	1206310x / 1206320x	1.0
Algebra II / Algebra II Honors **(Middle and High School)**	1200330x / 1200340x	1.0
AP Calculus AB	1202310x	1.0
Pre-Calculus	1202340x	1.0
Mathematics III/ Math III Advanced **(Middle School)**	1205070x/ 1205080x	----
Research and Critical Thinking		
SAT Preparation - Critical Thinking Skills	1700370x	0.5
FCAT Preparation - 10th Grade	1000420x	0.5
FCAT Preparation - 8th Grade **(Middle School)**	1700100x	0.0
Science		
Earth-Space Science / Earth-Space Science Honors	2001310x / 2001320x	1.0
Biology I / Biology I Honors	2000310x / 2000320x	1.0
Marine Science I / Marine Science I Honors	2002500x / 2002510x	1.0
Chemistry / Chemistry Honors	2003340x / 2003350x	1.0
Physics I / Physics I Honors	2003380x / 2003390x	1.0
Comprehensive Science III/ CS III Adv/ Gifted **(Middle School)**	2002100x/ 2002110x	----
Social Studies		
World History / World History Honors	2109310x / 2109320x	1.0
American History / American History Honors	2100310x / 2100320x	1.0
American Government / American Government Honors	2106310x / 2106320x	0.5
Economics / Economics Honors	2102310x / 2102320x	0.5
AP American Government	2106420x	0.5
AP Microeconomics	2102360x	0.5
AP Macroeconomics	2102370x	0.5
AP American History	2100330x	1.0
World Geography **(7th Grade)**	2103010x	----
US History/ US History Adv **(8th Grade)**	2100010x/ 2100020x	----

Broward Virtual Education

"Education is not a spectator sport" bved.net

BVEd Parent Tips and Suggestions



Dear Parents,
The staff of BVEd believes that students learn best when they, their instructors, family, peers, and community members interact as educational partners who can facilitate learning, and share responsibility for student success.

Please review the following suggestions. They can be of assistance in providing the quality education we want to offer to your child.

"BVEd students use the Internet to participate in a learning experience quite different from the traditional school classroom."
Nell Sapp, Principal, Broward Virtual Education

*** Access.** Know your child's username and password so you can also access the course(s).

*** Progress**. Check your child's online grade book at least once a week to see how many assignments have been submitted and what grades were received for that week. Check your personal email account for monthly interim reports.

*** e-Updates.** Establish an email account and enter the address in your child's online profile to receive monthly progress reports. Check www.browardschool.com for county-wide updates

*** Communication.** Read the comments made by teachers on the various assignments by accessing your child's outbox.

*** Outreach.** Contact the instructor or our BVEd guidance counselor to answer any questions or concerns.

*** Environment.** Ensure that your child has a positive virtual school experience by providing an area where he/she can concentrate and have access to the Internet, a telephone, and a printer.

If you have any questions please call Broward Virtual Education at (754) 321-1100.

Career, Technical and Adult/Community Education
GED Online

GED Online is an Internet-based interactive course designed to prepare adult participants for the official GED test. This tuition free online course provides students with the opportunity to learn anytime, in any place, and at any pace from the convenience of a computer. This learning experience allows instructors to communicate regularly via telephone and email to provide individualized instruction and accommodate the diverse learning style of all students.

Course subject areas include:

- Language Arts: Reading
- Language Arts: Writing (including an Essay)
- Mathematics
- Science
- Social Studies

For more information, contact the Career, Technical and Adult/Community Education Department at 754-321-2661.

HOW DO I KNOW IF ONLINE LEARNING IS FOR ME?

If you agree with the following statements, then you are a strong candidate for online learning:

- I have access to a computer with Internet capabilities and I have an email account.
- I am comfortable with using the Internet to communicate and access information.
- I have strong written communication skills.
- I am motivated and self-directed.
- I am comfortable reading and following directions on my own.
- I find it easy to work through problems independently.
- My personal schedule will allow me to be flexible and complete assignments on time.
- I enjoy exploring and learning new things.
- I am committed to working online at least 10 hours per week.

Distance learning courses, such as GED Online, are highly successful for people who find it difficult to meet at a particular location on a regular basis. Participants in this course will find the freedom of scheduling to be of value. Please be advised that a distance learning course requires as much time on the Internet as a face-to-face course.

Please remember communication is a key to success for any online course. Be sure to communicate frequently with your instructor.

The School Board of Broward County, Florida

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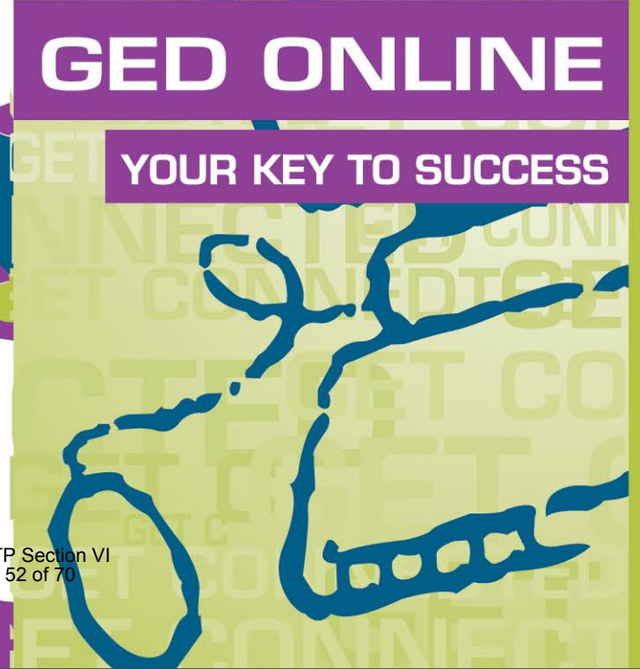
The School Board of Broward County, Florida, prohibits any policy or procedure which results in discrimination on the basis of age, color, disability, gender, national origin, marital status, race, religion or sexual orientation. Individuals with disabilities requesting accommodations under the Americans with Disabilities Act (ADA) may call Equal Educational Opportunities (EEO) at 754-321-2150 or Teletype Machine, TTY 754-321-2158.

www.browardschools.com



GED ONLINE

YOUR KEY TO SUCCESS



YOUR KEY TO SUCCESS • YOUR KEY TO SUCCESS • YOUR KEY

GED Online is an Internet-based interactive course designed to prepare participants for the 2002 GED Examination. This tuition free online course provides students with the opportunity to learn anytime, in any place, and at any pace from the convenience of a computer. This unique learning experience allows instructors to communicate regularly via telephone and email to provide individualized instruction and accommodate the diverse learning styles of the learners.

Course subject areas include:

- Language Arts: Reading
- Language Arts: Writing (including essay)
- Mathematics
- Science
- Social Studies

GET CONNECTED!

Career, Technical and Adult/Community Education
www.ctace.com

Broward County Public Schools
www.browardschools.com

WHAT EQUIPMENT DO I NEED TO PARTICIPATE IN THIS COURSE?

You will need to have access to a computer preferably with these minimum requirements:

PC (IBM COMPATIBLE)

- Pentium I (75 mghz minimum, higher recommended)
- Windows 95
- 64 Mb Ram
- 4x CD-ROM (8x recommended)
- 28.8 Baud modem
- Display setting (800x600) resolution
- Printer access
- Internet access through an Internet Service Provider (i.e. Bellsouth)
- Netscape Navigator 4.08 or above or Internet Explorer 5.0 or above*
- Flash player 5 or above*

MACINTOSH

- Power Mac 5400
- 64 Mb Ram
- 4x CD-ROM (8x recommended)
- 28.8 Baud modem
- Display setting (800x600) resolution
- Printer access through an Internet Service Provider (eg Bellsouth)
- Netscape Navigator 4.08 or above or Internet Explorer 5.0 or above*
- Flash player 5 or above*

*This software may be downloaded from the Internet at no additional cost.

HOW CAN I PARTICIPATE IN GED ONLINE?

- Contact your local adult center, technical center, or community school and ask what hours the school is available for registration.
- Take a placement exam at the participating adult center, technical center, or community school. This cost is $5.00.
- Register for the course at the school. You will need to provide your name, home address, email address, phone number, date of birth, and social security number. There is a $10.00 activity fee payable once per school year.
- Your instructor will contact you via email with information regarding when and how to access the course.

Qualifications:
To be eligible for the GED Online program, you must:

- Score a 9.0 or higher on the reading portion of the Test of Adult Basic Education (TABE);
- Have access to a computer with the required specifications;
- Commit to working at least 10 hours per week on the Internet;
- Be an adult who does not have a high school diploma.

WHAT ARE MY RESPONSIBILITIES AS AN ONLINE STUDENT?

- Take the placement exam at a participating adult center, technical center, or community school. Only upon scoring a ninth grade level in reading can you be a potential candidate in the online course.
- Complete the **GED Online Registration Form.**
- Sign the **Acceptable Use of the Internet Policy.**
- Sign the **Student Contact and Drop Policy.**

If admitted to the GED Online course, you will be accepted into a 21-day probationary period during which time your performance will be evaluated. If your performance meets the expectations of your instructor, you will continue in the course. Should your performance fail to meet the expectations of your instructor, you will be removed from the course.

For additional information regarding **GED Online**, contact Luana "Lu" Bassion with Career, Technical and Adult/Community Education at 754-321-2661.

Broward County Adult Centers, Technical Centers & Community Schools

- Atlantic Technical Center
  4700 Coconut Creek Parkway Coconut Creek
  754-321-5100
- Bair Community School
  9100 NW 21st Manor
  Sunrise • 754-322-2970
- Cooper City Community School
  9401 Stirling Road
  Cooper City • 754-323-0300
- Coral Springs Community School
  10300 West Wiles Road
  Coral Springs • 754-322-3070
- Crystal Lake Community Middle School
  3551 NE 3rd Avenue
  Pompano Beach • 754-322-3170
- Dave Thomas Education Center
  180 SW 2nd Street
  Pompano Beach • 754-321-6750
- Dillard/Parkway Community School
  2501 NW 11th Street
  Ft. Lauderdale
  754-322-0900
- Ft. Lauderdale High Community School
  1600 NE 4th Avenue
  Ft. Lauderdale
  754-322-1200
- Hallandale Adult Community School
  1000 SW 3rd Street
  Hallandale • 754-321-7050
- Hollywood Hills Community School
  5400 Stirling Road
  Hollywood • 754-323-1150
- Lauderhill Middle Community School
  1901 NW 49th Avenue
  Lauderhill • 754-322-3650
- Margate Community Middle School
  500 NW 65th Avenue
  Margate • 754-322-3870
- McFatter Technical Center
  6500 Nova Drive
  Davie • 754-321-5700
- Miramar High Community School
  3601 SW 89th Avenue
  Miramar • 754-323-1450
- Northeast Adult & Community School
  700 NE 56th Street
  Oakland Park • 754-322-1650
- Nova Community School
  3600 College Avenue
  Davie • 754-323-1741
- Old Dillard Community School
  1001 NW 4th Street
  Ft. Lauderdale • 754-322-8825
- Piper Community School
  8000 NW 44th Street
  Sunrise • 754-322-1800
- Plantation High Community School
  6901 NW 16th Street
  Plantation • 754-322-1950
- Sheridan Technical Center
  5400 Sheridan Street
  Street,Hollywood
  754-321-5400
- South Broward Community School
  1901 N. Federal Highway
  Hollywood • 754-323-1900
- Taravella Community School
  10600 Riverside Drive
  Coral Springs • 754-322-2400
- Tequesta Trace Community School
  1800 Indian Trace
  Weston • 754-323-4470
- Whiddon-Rogers Education Center
  700 SW 26th Street
  Ft. Lauderdale • 754-321-7550
- Walter C. Young Community School
  901 NW 129th Avenue
  Pembroke Pines
  754-323-4570

Career, Technical and Adult/Community Education
E-Learning Broward

E-Learning-Broward is a new initiative of the Career, Technical and Adult/Community Education Department.

The mission of E-Learning-Broward is to enhance and expand workforce education opportunities for adult and co-enrolled students in career, technical, adult and community education programs and courses in a distance learning environment.

The goals of E-Learning-Broward are to:

- Develop/repurpose and implement online career, technical, adult and community education programs and courses.
- Offer equitable access to high quality, individualized education through the Internet.
- Expand distance learning technologies for workforce education
- Promote flexibility of time and location for workforce education
- Enable e-learning students to develop the skills and attitudes, including the self discipline necessary to achieve success
- Implement appropriate assessment for a distance learning environment
- Build an e-learning infrastructure to support the future development and growth of E-Learning-Broward.

6.2

District acceptable use policy for access to all systems including Internet/World Wide Web that:

- Protects the confidentiality of students;
- Protects intellectual property rights, licensing agreements and legal/ethical standards for sharing of resources with other educational entities; and
- Maintains the integrity of systems, programs and information resources.

SCHOOL AND DISTRICT TECHNOLOGY USAGE

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA ADHERES TO THE BELIEF THAT TECHNOLOGY SHOULD PLAY A VITAL ROLE IN MEETING THE NEEDS OF THE BROAD RANGE OF ABILITIES, DISABILITIES, CULTURAL BACKGROUNDS AND ETHNIC POPULATIONS REPRESENTED IN DISTRICT SCHOOLS. TO ASSURE THAT TECHNOLOGY SHALL PLAY A PREDOMINANT ROLE, THIS POLICY PROVIDES GUIDANCE FOR APPROPRIATE TECHNOLOGY UTILIZATION AND INTEGRATION INTO THE CURRICULUM, AS WELL AS INFUSION INTO SCHOOL/DISTRICT ADMINISTRATION AND MANAGEMENT.

1. Definition

For the purpose of this policy, technology is defined as, but not limited to the following:

a. Instructional and staff workstations (both desktop and portable), printers, scanners and other peripherals;
b. Administrative staff workstations (both desktop and portable), printers, scanners and other peripherals;
c. Campus and departmental local area networks (both wired and wireless), including wiring, hubs, routers, transmitters/receivers and other devices;
d. Servers; including instructional lab servers, CD-ROM servers, video servers, file and print servers, database servers, internet proxy caching servers;
e. A Wide Area Network linking all SBBC sites into one countywide Intranet;
f. Telephone systems; including primary systems, integrated voice response/ management systems, automatic dialing systems;
g. Learning resource management systems, including library automation systems;
h. Distance learning systems;
i. Video capturing, broadcast, receiving, and distribution systems;
j. Teleconferencing systems;
k. Application software packages which result in the creation and maintenance of an operational database;
l. Energy management and security monitoring systems;
m. Radio systems;
n. Office copier, imaging, and document management systems;
o. Paging systems;
p. Intercom; and
q. Facsimile systems.

2. Purpose

a. To foster and support innovation and experimentation in the transformation from a traditional approach to teaching, learning, and education management to a technology-based model meeting the needs of the broad range of abilities, disabilities, cultural backgrounds, and ethnic populations represented in Broward County Public Schools.
b. To establish and maintain guidelines and procedures for appropriate technology utilization and infusion in the classroom, in the schools, in school and district administration and management, and in planning and evaluation to more effectively prepare students for the transition from school to work for success in the workplace, and to improve the operations of the school system.

3. Technology Guidelines

a. The primary priority of the technology system is to improve student learning.

b. Designs will be based on vendor-independent open system standards.
c. The network will integrate voice, data, and video communications systems.
d. The data architecture will be based on an enterprise-wide network using client-server technology.
e. Database management software will be relational and able to run on a variety of operating systems and hardware platforms.
f. A common data dictionary will be established that defines data elements at all levels from the classroom to the federal government.
g. Information management will be bi-directional, allowing data query, reporting and analysis as well as entry by authorized users.
h. Information will be recorded once and validated at the source.
i. Multi-platforms will be supported where possible.
j. All mainframe, personal and mini-computers and peripherals will be inter-connected through network hardware and software.
k. Uniform technology support services will be made available at all locations.
l. All technology resources and staff will be coordinated and integrated with appropriate curriculum initiatives and staff.
m. The system will be accessible to staff, students, parents, and the community and protected with security measures which prevent and detect/monitor unauthorized and inappropriate use.
n. Provisions must be made for keeping the technology current, within available resource, including policies on replacement or upgrade based on a life-cycle process.
o. Appropriate training and professional development must be provided to teachers, staff, and administrators to ensure timely implementation and effective use.
p. The technology must improve decision making and staff productivity.
q. A process will be established to monitor the effectiveness of technology project implementations.
r. Student safety, security, and compliance with laws governing records (Florida Statute Section 228.093 (3) (d) are of primary concern and must be considered in the implementation of all technologies.

4. Desired Outcomes

a. Technology will be appropriately and equitably integrated into instruction and management and used by all students and staff as an integral component of school improvement and student success. Improving student performance and achievement, increasing staff productivity, and ensuring efficiency of the day-to-day operations of the school system are the essential reasons for the use of technology in Broward County Public School System.
b. All school classrooms, including portables, media centers, and offices and all district departments and offices will be electronically networked and equipped, providing all staff, students, and administration equitable and easy access to information technologies for teaching, learning, management, and day-to-day operations.
c. All high school graduates will be prepared to use multiple technologies upon entrance into the work force and/or higher education.
d. New and emerging technologies will be evaluated, and if appropriate, incorporated into school curriculum and will be integral elements of school improvement and accountability.
e. Organizational productivity and efficiency will increase as technology is infused into the workplace.

f. Student, teacher, staff, and administrative effectiveness will improve concurrently with the infusion of technology into their respective workplaces.
g. The Broward County community will recognize district schools and departments as resources; and the number and quality of partnerships and cooperative endeavors will increase.
h. The decision-making process will be improved as technology facilitates the flow of information and the communication process, within the district, the state, and the world.
i. Improved communication between schools and institutions of higher education will increase the sharing of best practices as well as enhance pre-service and in-service training and emphasize technology integration into the curriculum.
j. Inter- and intra-departmental collaboration, from planning through evaluation, will be the goal of the District.
k. All units responsible for technology planning will work collaboratively with county, state, and government groups to investigate current, advanced, and emerging commercial technologies and to identify or develop, if necessary, efficient and cost-effective applications.
l. The broadest possible access to the School Board of Broward County's web based educational resources will be promoted, while providing safeguards to ensure that security is maintained. Towards this desired outcome, The School Board of Broward County, Florida, will support programs designed to bridge the Digital Divide.

5. Implementation

A comprehensive and continuous short and long-range Board technology implementation process will direct, review, and evaluate the effective utilization of all aspects of technology.

a. The Superintendent will direct staff to:
   1. Consult and collaborate on a continuing basis with education, business, community, and government groups locally, regionally, and nationally.
   2. Identify student competencies in using technologies to access, analyze, apply, and communicate information and incorporate them into the Standards of Service.
   3. Identify staff competencies in integrating and applying information technologies in instruction and management and incorporate these competencies as part of the evaluation process.
   4. Identify educational management tools to be acquired and implemented.
   5. Establish and continually update an ongoing staff development program to support technology usage and integration.
   6. Establish baseline standards to ensure that all schools and offices have adequate, appropriate and up to date hardware, software, and communications capabilities as rapidly as resources permit.
   7. Review and/or establish documents as needed on copyright, acceptable use, and other ethical use policies.
   8. Identify, document, and evaluate core processes that need improvement or re-engineering to maximize the productivity and educational benefits from technology investments.
   9. Prepare a viable timeline for task implementation and completion, taking into account human and material resources, which will assist in evaluating the progress and effectiveness of the district's technology plan.

b. The Chief Information Officer will establish a Technology Advisory Committee which will be governed by the Technology Advisory Committee Bylaws.

1. Committee charge:
   a. The committee will provide input, advice, and assistance in the implementation of the School and District Technology Usage Policy.
   b. The committee is advisory to the Chief Information Officer in all areas involving technology.
   c. The objectives, duties and actions of the Technology Advisory Committee may not conflict with any of the powers and duties reserved by law to the School Board or to the Superintendent of Schools.

2. Meetings:
   a. The Technology Advisory Steering committee will meet monthly during the school year. The Technology Advisory General Committee shall meet every other month during the regular school year. Special meetings may be called, as required, by the Chairperson or by the Sub-Committee Chairs or by a majority vote of the membership of the Technology Advisory Committee.
   b. All general, steering, and sub-committee meetings must be scheduled and officially advertised in advance. Committee members must be advised of any change in the established date, time or location.
   c. All general, steering, sub-committee and special meetings of the Technology Advisory Committee shall be conducted in accordance with Robert's Rules of Order, newly revised, or in accordance with an appropriate adaptation and operate pursuant to the Florida Sunshine Laws.
   d. The Chairperson of the Technology Advisory Committee, or his/her designee, will make at least bi-monthly reports to the Chief Information Officer. The Chairperson, or his/her designee, will also make regular reports to the School Board subsequent to each bi-monthly meeting. Minutes will be posted to the TAC web site within two weeks of each bi-monthly meeting, after any special meetings and after each sub-committee meeting.

3. Membership:
   a. The Technology Advisory Committee will elect a Chairperson who is a non-School Board employee from the full TAC membership to a term of one year.
   b. All members of TAC shall be officially approved by the Broward County School Board.
   c. The committee will be composed of members representing the following categories:
      1. Nineteen (19) Teachers: three (3) teachers from each Area, one (1) each from the high, middle and elementary school; three (3) Media Specialists one (1) each from high, middle and elementary school; three (3) technology specialists one (1) each from high, middle and elementary school; and one (1) vocational instructional person. Each Area Office will be

responsible for electing/appointing the teachers for this representation.

2. Twelve (12) Parents: three (3) each from the four (4) current parent organizations- DAC, PTA, ESE, and ESOL. Each organization will have the responsibility of electing/appointing their three (3) representatives.
3. Three (3) Students: two (2) high school students elected/appointed by the Broward County Association of Student Councils and/or Student Technology Leadership Program, and one (1) adult vocational student elected/appointed by the Technical Centers.
4. Four (4) Area Instructional Technology Specialists: Each Area Technology Specialist will serve as a member of the TAC.
5. Two (2) TLCs: Two (2) TLC's will be elected/appointed by the TLC representatives.
6. Nine (9) School Board Appointees: Each School Board Member will appoint one (1) representative to TAC, residing in said Board Member's district.
7. Five (5) Curriculum Specialists: The five (5) areas of curriculum – reading, language arts, mathematics, social studies and science will elect/appoint a representative to TAC.
8. Four (4) School-Based Administrators: Each area will select a school-based administrator to serve on TAC.
9. Five (5) Post-Secondary Education: The Broward County Consortium will select five (5) members representing the post secondary educational schools in Broward County.
10. Three (3) Community Business Reps: The Broward County Alliance will elect/appoint three (3) members to TAC.
11. Two (2) Broward County Government: Broward County will select one (1) member from the County technology area and one (1) member from the Public Library System.
12. Five (5) members from the various areas of ETS will be selected to serve as members of TAC.
13. Four (4) Union Representatives, one (1) from each of the following bargaining units: Broward Teachers Union, Technical Support Professionals, Broward County Paraprofessionals Association, and Federation of Public Employees.
14. Eight (8) District Office Departments: One (1) member from each of the following departments will be selected to serve as a member of TAC: Budget, BECON, Facilities, HRD, Strategic Planning, Research and Evaluation, Maintenance and Purchasing.
15. Superintendent Designee Appointment

d. No member can be a vendor or be a party personally affiliated with someone doing business with the Broward County School Board.

e. Technology Advisory Committee members shall be elected and/or appointed for one (1) year and may be elected and/or appointed for additional terms. Members nominated by the various selection/source groups should have an expertise in technology

and its uses and issues. Appointment of a School Board Member Representative to the TAC Committee shall follow School Board Policy 1.7.

f. Any member may resign by filing a written resignation addressed to the Chairperson of the Technology Advisory Committee.

g. Any vacancy of the Technology Advisory Committee shall be filled for the remainder of the unexpired term through appointment/election/selection, by the appointing/electing/selecting body or agency with the approval of the Steering Committee.

4. Attendance:

a. Any voting member during the period of appointment who has two (2) unexcused absences as determined by the TAC Steering Committee may no longer be considered a member in good standing and can be removed from the committee.

b. Absences for Steering and General Committee meetings must be reported to the Recording Secretary in order to be excused. Absences for Sub-Committee meetings must be reported to the Sub-Committee Chair/Co-Chair in order to be excused. Excessive excused absences will be reviewed by the Steering Committee. If Steering decides the member is no longer considered a member in good standing, the member may be removed from the committee(s).

5. Voting Rights:

Each position shall be entitled to one voice and one vote on each matter submitted to a vote of the Technology Advisory Committee. An individual holding more than one (1) position on the TAC, either elected or appointed, shall cast only one (1) vote on each matter submitted. A member must be a member of Good Standing and the member must be present in person to vote. When necessary, the Recording Secretary shall tally the votes according to the roll call of members present. Vendors and other interested parties may contribute to committee, but have no voting rights.

6. Acceptable use of Computer Network and Online Telecommunications

a. Rules

1. All use of telecommunication services and networks shall be consistent with the code of ethics for computer, network and on-line telecommunications users.
2. Successful participation in a network requires that its users regard it as a shared resource and that members conduct themselves in a responsible, safe, ethical, and legal manner while using the network.
3. Staff and students who are exchanging communication with others outside the school are representing The School Board of Broward County, Florida, and should conduct themselves appropriately.
4. Use of these services shall be properly monitored and, to the extent reasonably possible, users of school sponsored telecommunication services and networks shall be protected from harassment or unsafe, unwanted, or unsolicited contact.

5. Upon receipt of written parental/guardian permission, students will be eligible to receive authorization to use computer network and online telecommunications from the appropriate supervisory unit (district office or school-based).
6. Technology owned or leased by the School Board shall not be used for advertising or otherwise promoting the interests of any commercial, religious, political or other non-district agency or organization except as permitted through board approved agreements, school board policies or state statutes with notification to the Chief Information Officer.
7. To implement the Acceptable Use provision of this policy, it is necessary that all users read and document in writing their understanding and willingness to comply with the "Code of Ethics for Computer Network and Online Telecommunications Users." (see below)

b. Code of Ethics for Computer Network and Online Telecommunications Users

1. All users are expected to read and understand the following privileges, rights, and responsibilities when using property or facilities (WAN, LAN, networks, Internet, Intranet, etc.) of Broward County public schools.
   a. Use of computer network and online telecommunications is a privilege and must support teaching, learning, and research.
   b. Students, parents, faculty, and staff in Broward County Public Schools will have access to web based educational resources in compliance with local, state and federal laws.
   c. Authorized users shall be ultimately responsible for all activity under their account and password. Accounts shall be used only by the authorized user for the purposes specified.
   d. Use of an identity or password other than the user's own is prohibited.
   e. All network users shall adhere to the rules of copyright regarding software, information, and the attribution of authorship. Re-posting communications of a personal nature without the author's permission or bulletin board messages without proper attribution is prohibited.
   f. Any use of telecommunication services or networks for illegal, inappropriate, obscene, or pornographic purposes shall be prohibited. Illegal activities shall be defined as a violation of local, state, and/or federal laws. Inappropriate use shall be defined as a violation of the intended use of the district's mission, goals, policies, or procedures. Obscenity and/or pornography shall be defined as a violation of generally accepted social standards for use of a publicly owned and operated communication vehicle, and as defined by School Board policy.
   g. All use of telecommunication services or networks for the promotion of an individual's personal or political agenda or commercial initiatives shall be prohibited.
   h. Use of or engaging in offensive or inflammatory speech, profanity, or obscene language is not permitted at any time.
   i. Hate mail, harassment, discriminatory remarks, and other antisocial behaviors are not permitted.
   j. Users shall not intentionally spread computer viruses, vandalize the data, infiltrate systems, damage hardware or software, or in any way degrade or disrupt the use of the network.

k. Any attempts to degrade or disrupt system performance may be viewed as criminal activity in accordance with applicable state and federal law.

l. Files generated by district employees using School Board of Broward County property or facilities are the property of the School Board of Broward County and may be accessed by appropriate authorized system personnel.

2. Students and/or employees using School Board equipment or property, on-site or off-site, must conform to the requirements of this policy.

3. Users who knowingly violate any of the Acceptable Use Provisions or Code of Ethics for Computer Network and Online Telecommunications Users will receive disciplinary action and/or may even be denied future access.

7. Web Pages - School and District

a. The school and district web sites will provide information, accessible world wide, about curriculum, instruction, school-authorized activities, and/or other items related to the district's educational mission and achievements. This policy is meant to include both intranet and internet activities.

1. Purpose:
   a. To provide information about the district or school to a worldwide audience.
   b. To provide opportunities for students and educators to participate in the exchange of information and ideas.
2. Subject Matter:
   a. All subject matter must be related to curriculum, instruction, school-authorized activities, or it should relate to the school district or schools within the district.
   b. Neither students nor staff may publish personal web pages as a part of the external district web sites, nor pages from other individuals or organizations not directly affiliated with the district.
   c. Student or staff work may be published only as it relates to a class project which has been approved by the appropriate administrator.
3. Content Quality/Standards/Approval:
   a. All web pages must be approved by the appropriate administrator prior to being electronically published to the web site.
   b. All web content must be reviewed for quality, propriety, and appearance by the authorized administrator.
   c. Procedures must be established by the appropriate administrator for periodic review, update, and deletion of material.
   d. Web page naming and identification practices must be consistent with current district guidelines.
   e. Decisions regarding access to web pages for editing content or organization will rest with the appropriate administrator.
   f. No unlawful use of copyrighted materials may be knowingly used, produced, or transmitted via school and/or district equipment.

g. Web pages and links published by schools and district departments must adhere to the content provisions described in sections 6.a and 6.b of this policy.

h. Each website will contain language limiting the School Board of Broward County's responsibility for site content not created by the Broward County Public School's.

Web Page Procedural Guidelines

General Guidelines:

- All persons developing or maintaining web documents are responsible for complying with district Web Page and Acceptable Use Policies. (See Section 5 of Policy #5306)
- Written parental permission is required when an individual student is identified by name in a picture included on a web page.
- Web page documents may not include a student's phone number, address, or complete names of any family members and/or friends.
- Web page documents may not include any information which indicates the physical location of a student at a given time, other than attendance at a particular school or participation in activities.
- Only computers assigned as the building or district web server shall be configured as web/FTP servers.
- Web publishing of e-mail addresses is restricted to staff members or to a general, group e-mail address.
- Web pages must not contain any student e-mail links.

Authority: F.S. 230.22 (1) (2) Rules Amended: 2/17/98; 12/15/98, 5/1/01, 3/4/03, 4/29/03, 1/18/05
Rules Adopted: 8/6/96

6.3

A Technology Protection Measure is a specific technology that blocks or filters internet access. It must protect against access by adults and minors to visual depictions that are obscene, child pornography, or—with respect to use of computers with internet access by minors—harmful to minors. It may be disabled for adults engaged in bona fide research or other lawful purposes.

INTERNET FILTERING

When the Broward School District decided to join the Internet community, two important issues were addressed: (a) how to "block" educationally inappropriate sites; and (b) how to prevent hackers and other malcontents from "attacking" computers within the District's wide-area network (Intranet). To address these complex issues, the District consulted with the Florida Information Resources Network (FIRN) which provides Internet access to the State's University system and School Districts throughout the State and with a nationally recognized K-12 consulting organization. These discussions revealed that, with a combination of hardware, software, and Board policies, a reasonably "safe" Internet access could be provided to the administrators, teachers, and students in this District.

At the hardware level, a "firewall" was purchased which effectively "hides" the computers in the District from outside attack. On the Internet, from outside the District, no individual computer workstation is identifiable and is thus protected from hackers that would attempt to destroy data and otherwise cause havoc. This "firewall", built by Cisco Systems, a leader in networking solutions, is used by FIRN and other school districts and is thought to be a leader in this technology.

To protect students from viewing inappropriate materials on the Internet, the District utilizes the Websense solution provided by FIRN. In addition to this externally supplied database, the District maintains a list of inappropriate sites that have been identified by school-based administrators. This provides a means of instantly blocking a site at the District level. However, since a particular web site might be appropriate for high school students but inappropriate for elementary students blocking sites at the District level might not always be desirable. The District has deployed a Cisco caching engine at every school so that principals will have the ability to block and unblock web sites as the local community might demand.

Given the nature of the Internet and how easy it is to create a web page with inappropriate content, no software-based solution can possibly catch every inappropriate web page. Therefore, Board Policy #5306 was passed which includes the District's "acceptable use" policy. This policy recognizes that not every inappropriate page will be blocked and, as a requisite for Internet access, requires users to commit to using District Internet access to support the improvement of student achievement and enhancement of staff productivity. In addition, monitoring by teachers and administrators provides another layer of protection from inappropriate access.

The three-tiered (hardware, software filtering, and Board policy) approach to protection described above prevents <u>access</u> to web pages. To date, an effective way of preventing students from <u>learning</u> about these sites has not been devised. Mostly through email, companies pass the "address" of their sites to unsuspecting users.

As the number of computers on the Internet continues to explode and as the creation of web pages continues to get easier, the issue of "blocking" will challenge any attempt to protect students from every inappropriate site. With a combination of hardware, software filtering, and Board policy, the District has invested considerable resources to make Internet use as safe as possible while recognizing that no solution is foolproof.

WIRELESS NETWORKING GUIDELINES

Wireless network technologies are poised to play an important role at Broward County Public Schools. Staff and students are quickly beginning to recognize the benefits of this mobile, untethered network. For this reason, installations have been appearing rapidly around the District. Unfortunately, many implementations are being done informally, with little or no planning. Broward Schools Education Technology Services Department believes that a coordinated, centralized delivery of wireless networking services is the best strategy to succeed in the face of these challenges. Our goal is to provide a common user experience across the District, efficiently support users, protect network resources, and provide a quality service. There are two major challenges:

1. **Security and access control:** Unless steps are taken to protect them, wireless LAN (WLAN) installations are open to anyone within range of the access point. If a wireless access point is connected to the Broward Schools network without restrictions, anyone with the proper equipment will be able to access the Broward Schools network, even from outside the building. Furthermore, anyone with the proper equipment could intercept traffic. They can see users' passwords as well as other data. As Broward Schools moves more and more services online, the amount of damage that can be done by unauthorized people is increasing.
2. **Interference:** There is a finite amount of bandwidth available for wireless use. The most common wireless LAN technology (802.11b) defines 14 possible frequencies. However they are close enough together that they can interfere with each other. Thus it is common practice to use only 3 (or possibly 4) channels. If wireless LANs are installed without coordination with others in the area, interference is likely. This may result in significantly degraded performance for everyone.
    1. One area of conflict of particular concern is the use of Bluetooth personal area wireless networking in areas that have Broward Schools WLAN coverage. Because these two wireless networks both use the same general radio spectrum, there is the potential that either of the two systems will fail when the two are operating in the same area. The likelihood of network connection failure increases as the number of competing Bluetooth and Wireless Local Area Networking (WLAN) are deployed near each other. This factor should be considered in purchasing and deployment decisions as they relate to co-located WLAN and Bluetooth installations and use.
    2. A second potential conflict may occur with the introduction of portable (not cellular) phones in an area of WLAN coverage. These devices also use the radio 2.4Ghz spectrum shared by Wireless local area networking and Bluetooth. Again, care should be taken to make sure that areas in which reliable wireless LAN coverage is required the use of these devices be minimized.

The security dangers are not just theoretical: Tools to tap nearby wireless networks are widely available. Several incidents have been reported in Broward Schools where interference has been observed between clustered, competing wireless technologies.

Background

With the ratification of the 802.11b standard for wireless networking in 1999 and the subsequent proliferation of interoperable, affordable products that support that standard, wireless network technology has established itself as an important complement to the traditional wired data networks.

Mobile access to information improves our ability to communicate. Faculty, staff and students will

have the ability to check email or their schedules from most places around campus. Access to the Internet will no longer be tied to a computer in an office, lab or classroom. Wireless network technology is also beneficial for gaining network access in locations that are difficult, expensive, or inconvenient to wire. Examples include large lecture halls, outdoor areas, conference rooms, etc.

Wireless networks have their limitations. For example, they are slower than wired networks. Wireless networks are also inherently insecure. Tools are readily available to capture someone else's communications, including passwords and other sensitive data. Wireless network users must take extra precautions and adhere to standards to ensure secure communications over a wireless network.

While the standard does allow a wireless network card from one vendor to connect to an access point from another vendor, the devices must all be carefully configured for this support. Every product also has proprietary features that don't interoperate. This is especially true when it comes to security and management. Consequently, wireless network standards and central management of the campus "air space" are necessary to protect valuable information resources and to ensure the highest degree of interoperability as one moves from one location to another on campus with a mobile device.

Suitability

Wireless systems offer a different type of service from wired service with respect to reliability, available bandwidth, security, and portability. Wireless service is an extension of the wired network for general-purpose network. It enables applications that require the mobility offered by wireless, but which don't require the bandwidth or reliability of wired connections.

Wireless bandwidth availability is more limited than wired bandwidth and is shared among users in an area. As the number of users in an area increase, the available bandwidth to each user decreases. So wireless is less appropriate in areas of high user density, especially if high bandwidth applications are a requirement. Given the limited bandwidth available per user, wireless currently works best for the relatively low bandwidth applications, such as web browsing and e-mail.

Wireless networks are NOT a replacement for wired networks. The purpose of the wireless network is to extend the wired network by providing Web browsing and e-mail access in areas of transient use such as common areas. Wireless networks have a much smaller bandwidth than wired networks; therefore, applications that require a large bandwidth may overload the wireless network. Wireless networks work best when the number of users is limited - the more users, the smaller the share of the bandwidth available to each.

Rationale for Standard / Guidelines

The purpose of these guidelines are to improve the reliability and performance of the District's wireless network service while ensuring that concerns about network security, network interoperability, and reduce the incidents where possible interference can occur between the campus wireless networks and other wireless technologies deployed at these sites.

The establishment of specific wireless network standards is intended to :

1. Communicate intent and direction with respect to the deployment of wireless technology across the Broward Schools enterprise network.
2. Provide a framework for a common experience for wireless users across campus.
3. Designate a security mechanism for authenticating users to wireless service.

4. Set expectations and guidelines for wireless usage.

Scope

This policy applies to all wireless network devices utilizing Broward Schools IP space, and all users of such devices, and governs all wireless connections to each campus and the District network backbone, frequency allocation, network assignment, registration in the Domain Name System, and services provided over wireless connections to the District network backbone to schools, departments, or divisions of Broward County Public Schools.

Implementation

1. Expansion of Broward Schools wireless networking is to be provided by, or installed with, coordination services provided Broward Schools' Education Technology Services (ETS). Individuals, units, and departments seeking to deploy or extend the reach of the wireless networking at their school or support location should not install their own wireless access points. ETS reserves the right to deploy wireless networking equipment as a part of a campus-wide wireless service in District owned and rented spaces. This may require the removal of non-standard equipment. Exceptions for user deployed wireless networking equipment will be considered on a case-by-case basis. To contact ETS about wireless networking, send an email to mike.brown@browardschools.com.

2. Administrators, department staff, teachers, and students are not permitted to install their own wireless networking equipment.

3. Wireless service requests which are denied can be appealed using the Technology Standards Waiver Process as prescribed elsewhere in this Standards web site.

4. Removal of non-standard equipment from service can be appealed to Broward Schools' CIO.

Supported Deployment Model / Equipment and Configuration

All approved Broward Schools standard Wireless Access Points and switches are from the Cisco-Airespace product line. This equipment must be purchased through normal SBBC purchasing procedures and be integrated with the District's Local Area Networks in accordance with all provisions of this standard deployment guide. Wireless networking equipment is to be purchased using SBBC RFP 25-005N-Group 2.

Schools and Departments are no longer permitted to purchase non-approved access points including, but not limited to Apple Airports, D-Link, Netgear, RoamAbout, and Linksys equipment.

For detailed information about purchasing wireless networking components and additional information about deploying wireless technologies, click here.

Failure to comply

ETS reserves the right to disconnect any wireless network from a school or department when the configuration and/or the traffic support by this network violates the practices set forth in this standard purchasing and deployment policy

NTA Outline: Summer 2005
High School

Day 1	Day 2	Day 3	Day 4	Day 5
*Section **1*** Purpose *Section **2** (August only)* Overview of District *Section **3*** What is an Effective Teacher? *Section **4*** FPMS (Effective Teaching Behaviors CD) (For Reference) *Section **7*** Classroom Management	*Section **8*** Curriculum Requirements (SSS) *Section **10*** Multicultural *Section **11*** ESOL *Section **12*** ESE *Section **13*** Instruction *Technology* Teacher Productivity 1 1/2 Hours	Reading Across the Curriculum *Section **14*** FCAT • Bloom's Taxonomy • FCAT Test Items • FCAT Like Questions *Technology* *Teacher Resources* 1 1/2 Hours	Core Content: • Reading • Mathematics • Writing • Science • Social Studies	*Section **15*** Professionalism *Section **5*** Florida Educator Accomplished Practices (For Reference) *Section **6*** Ethics and Legal Requirements (For Reference) *Technology* Digital Resources 1 1/2 Hours

Section VII -- User Support Plan

7.1
Network management and improved support for end-users in classrooms.

7.1 Network Management

The District has a Network Operations Center (NOC) that has been in operation for nearly five years. The primary functions of the NOC are monitoring and controlling the network equipment and workstations on the District's Wide-Area Network (WAN) from a central location. This includes managing and supporting approximately 100,000 networked Macintosh and Windows workstations and over 1,000 servers scattered among the 300 locations throughout Broward County.

The District has decided to follow industry best practices and implement the tools and processes that allow much of the work required to track, manage, and support the district's workstations and servers to be automated and performed remotely. The District will implement a system for automated software distribution and remote desktop management to insure high availability to educational resources by teachers, students, and administrators. This system will encompass remote control/support of workstations and servers, automated software distribution, software patch and anti-virus management, asset management, license monitoring and management, and desktop management.

The establishment of the NOC has allowed the District to realize the following objectives and benefits:

- Managing the technology resources using a process of continuous improvement based on the ITIL (Information Technology Infrastructure Library) model
- Monitoring the delivery of services against adopted Service-Level Agreements (SLA)
- Monitoring utilization trends and identifying necessary corrective action to ensure the ongoing achievement of SLAs
- Monitoring network security tools to identify and prevent incoming and outgoing threats and attacks
- Providing reliable and consistent network performance and access to educational resources
- Removing the network infrastructure as a impediment to access to resources
- Providing rapid detection, isolation and correction of network problems
- Keeping servers and workstations updated with the latest patches and virus protection files
- Reducing the time for response to and resolution of network problems
- Increasing network reliability
- Providing reliable information to justify network expenses and expansion

In summary, by centralizing the management and monitoring of the network infrastructure and critical application servers, the District relieves the individual sites from this responsibility and can better predict, analyze, and remedy network issues before they negatively impact teaching and learning.

7.2
Development of district technical support options for equipment maintenance and replacement

Broward County Public Schools

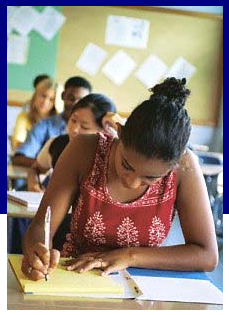
School and Department-based Technical Support



In conjunction and collaboration with:

- **CIO and Area Superintendents**
- **School and District Administrators**
- **CELT Corporation**

February 15, 2005

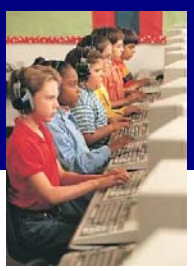



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1.0 Introduction

Effective technology support staff is the key to the full utilization and management of technology in any school or district. As technology has become embedded in the school setting, schools and districts have had to develop support systems, create support roles and acquire people to fill them. Lack of ongoing maintenance and support will result in lack of use and integration.

The Florida DOE STaR Chart, based upon the CEO Forums' STaR Chart, places a school at the exemplary level when it has the following indicators:

- a full-time school-based technical support person
- additional staff (including faculty) to support network and web production
- technical support response time less than 4 hours
- full time school-based instructional technology specialist
- additional staff (including faculty) with expertise in specialized areas of integration.

The International Society of Technology in Education (ISTE), in conjunction with the Bill and Melinda Gates Foundation, cites technical and instructional staffing in their Technical Support Project. In 2001, they engaged in a Technology Support Project to identify effective technology support strategies for school districts and a Technology Support Index was a tool developed as a strategic guide. Four domains were identified and assumed required at a minimum threshold. Those domains were: equipment standards, staffing and processes, professional development and intelligent systems. Like the STaR chart, they identified four stages of capability: Emergent, Islands, Integrated and Exemplary and also included fiscal impact.

Not only is the technical support crucial, but support for the integration of technology into the curriculum must also become our focus so that our students are prepared now and for the future with the skills to function in a rapidly changing information and technology society. The impact of technology must result in an increase in student learning, relevance to real-life situations, preparation for college and\or the job market, and motivation to succeed. Providing staff development opportunities for this to occur, includes the building of skills among school staff, moving them from an entry stage of tech basics, through adoption and adapting technology, to appropriating technology for project-based learning and inventing technology uses in the classroom.

The goal of BCPS must be to reach for the highest level of technical and instructional staffing support for integrating technology. Fiscal impact may not be eliminated, but could be minimized by a coordination of resources and services. As Susan Brooks-Young states in Making Technology Standards Work for You, "Education leaders foster and nurture a culture of responsible risk-taking and advocate policies promoting continuous innovation with technology."

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2.0 Objectives of this Report

As the number of technology devices and the utilization of software has increased geometrically within schools and departments of the BCPS, so too has the need to provide higher quality Technical Support. While the BCPS employ many extremely competent individuals who provide Technical Support, both in schools/departments and working in specific units of the ETS Department, there has not been a planned, comprehensive set of recommendations designed to provide Principals and Department Heads with the tools to create an internal organization structure which provides high quality technical support to students, faculty, and staff.

During the needs assessment phase of the BCPS IT Blueprint in 2003, school-based administrators identified Technical Support as one of their highest priorities. With limited funds available to increase positions for support personnel, this Project was initiated to specifically find ways to enhance and improve Technical Support at the school and department levels without the addition of new operating fund dollars.

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3.0 School and Department-based Technical Support Leadership Team Process

Prior to the first meeting of the Tech Support Leadership Team, demographic and budget data was collected to provide a foundation from which the Team could begin to form a clear picture of the current status of Technical Support across the entire BCPS. The data collected included the numbers of positions (micro-computer technical specialist and media specialist) stratified by level of school (elementary, middle, high, centers) and the 2004-05 budget funds for these positions. In addition, data concerning the capital and operating budgets of the Help Desk and Metrology Lab were collected. Finally, a review of the current Support Allocation formulas for all schools was undertaken.

The Superintendent of Schools, Dr. Frank Till, set the tone for the Project at the Leadership Team meeting on October 25, 2004. His expectation was that recommendations would come forth to enhance and improve school and department-based technical support without the need for additional operating fund dollars.

Area Instructional Technology Specialist provided the CELT Team with recommended schools to visit in order to see first-hand how Technical Support was currently being provided. The recommended schools were carefully selected to provide a wide array of different support models. In addition, a visit to City Furniture corporate headquarters was conducted in order to show how the private sector Help Desk function was conducted.

In January 2005 a web-based survey was developed to provide the opportunity to 70 District Departments to describe their current status of in-house Technical Support. The results of this on-line survey were incorporated into the final recommendations of this report.

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4.0 Micro-Computer Technical Specialist Recommendations

4.1 The Support Allocation formulas for elementary, middle and high schools should be revised to include the position, Micro-Computer Technical Specialist. This position exists at over 66% of the current schools, yet it is not listed at all in the Support Allocation formulas, which include other positions such as bookkeeper, budgetkeeper, secretary, clerical, etc. The recommendation is to add the position, Micro-Computer Technical Specialist, on each of the three formulas (elementary, middle, high) at an appropriate range by substituting the Tech position for one or more currently listed positions. The recommendation is designed to inculcate into the culture, the position, Micro-Computer Technical Specialist, without increasing the cost to the District.

4.2 The Budget Guidelines should clearly delineate the fact that schools can spend their Support Allocation funds on positions other than those specifically identified in the SA formulas, by range. Some conflicting information came forth in the data gathering phase of this Project which indicated that principals, university professors, and Area staff were not universal in the opinion that schools were permitted to spend their SA funds on positions other than those identified on the formula for their range.

4.3 Schools and Departments should not be permitted to employ an individual as a Micro-Computer Technical Specialist unless that individual meets both the regular and special qualifications of the Board approved job description (MM-085, FL:315). Some individuals have been upgraded to the position, Micro-Computer Technical Specialist, who need additional training in technical areas in order to properly perform the performance responsibilities of the position.

4.4 Expand the outstanding “Technology Support Certification Program (TSCP),” presently offered as a partnership between Customer Staff Development Services and Sheridan Technical Center, to additional Centers so that currently employed, but under trained Technicians and potentially new Techs can easily enroll in this program. This recommendation provides the opportunity for individuals who were employed as Micro-Computer Technical Specialists, but need additional technical training, to gain needed skills through an excellent program, with no additional cost to the District (CWE funds to pay for additional enrollments). In addition, individuals who aspire to become Micro-Computer Technical Specialists, will also have the opportunity to enroll in these programs.

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Summary:

The BCPS created and approved a non-instructional technical support position in 1994, and has subsequently revised the job description of the position in 1996, 2003 and 2004. At this time the position title is Micro-Computer Technical Specialist. Currently, 149 schools and centers employ one or more of these individuals. Even some of the smallest schools, in terms of general operating budget SA/IA ranges, have hired a Micro-Computer Technical Specialist to provide technical support within the school.

This type of position, to provide technical support directly at the school and department level, became of such importance that the Customer Staff Development Services Department developed and offered a Technology Support Certification Program in 2000-2001. Thirty-five participants successfully completed that first program. In the fall of 2002, the CSDSD formed a partnership with Sheridan Technical Center for the purpose of evaluating and updating the curriculum, and for program delivery. In November 2002, a select group of technologists was brought together to complete a DACUM chart for this program. This was done to ensure the appropriate skills would be taught and the content would be relevant. To date, 132 individuals have completed this excellent TSCP program.

Micro-Computer Technical Specialists
2004-05 General Fund

School Type	Salaries	Fringe
Elementary	2,371,761.	825,352.
Middle	1,074,989.	364,721.
High	1,038,734.	352,514.
Centers	151,548.	52,994.
Adult/Technical	252,800.	84,980.
Community	98,432.	32,862.
	4,988,264.	**1,713,423.**
	Grand Total	**$6,701,687**

5.0 Teacher - Technology Specialist Recommendations

5.1 Recommend the development of a comprehensive job description for the existing position, Teacher-Technology Specialist (980235, ID#10001928). This job description should provide the Principal with the greatest degree of flexibility in selecting candidates for the position.

5.2 Recommend a short training program aligned with the developed job description.

Summary:

During the data-gathering phase of this Project, it was discovered that a position, Teacher-Technology Specialist already was in place in the BCPS. A total of 10 individuals were coded to this position. Further, it was discovered that no Board approved job description exists for the position. Since it is known that some Teacher-based individuals in the schools and centers currently perform "technology" functions on a full or part-time basis, it would be prudent to develop a job description for this already existing position and ask schools to code appropriate individuals to it.

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6.0 Area Instructional Technology Specialist Recommendations

6.1 Recommend the Area Instruction Technology Specialist continue to report directly to the Area Superintendents.

6.2 Recommend this position continue to serve as the conduit to channel information, facilitate, and implement the BCPS information technology plan linking the area office, BCPS departments and schools.

Summary:

The direct line of communication for schools experiencing difficulties in virtually any subject area is to their Area Office. During the site visits phase of this project, time and again it was noted that technical support and technology integration personnel counted on their Area Specialist as a major positive resource. Further, in conversations with the Area Superintendents, they also indicated that by having these individuals report directly to them, they could respond more quickly and timely to technology concerns in the schools.

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7.0 Customer Support Service Recommendations

7.1 Continually increase the abilities, and delivery of instructions and support offered to customers by continuous improvement of skills and proficiencies of the ETS Service Desk staff. Offer expanded in-house training programs for the ETS service desk staff.

- Technology vendors as teacher/trainers
- ETS senior staff members as teacher/trainers
- Online and computer-based staff development
- Technical Support Certification Program

7.2 Procure a new customer relationship management (CRM) solution with centralized management to help handle customer support tickets from submission to resolution. A new CRM system will:

- Provide web-based access to generate trouble and add/move/change tickets.
- Provide customers and the ETS staff with the ability to answers frequently asked questions through a comprehensive knowledge base.
- Provide for infrastructure asset management.
- Provide the ability to view procedural instructions for performing changes (i.e., testing, back out/recovery, communications procedures).
- Provide a release management solution or interfaces for integrated build management, secured version control and related software library management functions to support release management activities.
- Provide the ability to define and schedule Service Level Agreements (SLA) and automatically generate an external alert mechanism to notify appropriate personnel at specified intervals.
- Provide the ability to include attachments on e-mail and/or external alert notifications regarding repair tickets.
- Include a comprehensive, on-demand, customizable report generation tool for all quantifiable aspects of asset management, response time, travel time and standard call center metrics.
- Provide the ability to automate customer surveys and track responses.
- Provide desktop discovery tools.

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- Provide automated, customizable call escalation.
- Provide the ETS Service Desk staff with up to date built-in tutorials.

Summary:

The Customer Support Service (CSS) Unit provides technology hardware and software support to the district through the ETS Service Desk, FAST Team and Metrology Unit.

The Service Desk provides problem solutions and works to develop customer communications to ensure the proper handling and routing of all incoming technical support calls. The ETS Help Desk supports over 2,300 customers and receives an average of 6,900 requests each month. They assist customers with many technology related issues including the support of over 100,000+ computers, radio systems, printers, phone systems, Library Resource Management Systems, AS/400/NT Servers, HRMS- Technical, Password Support & GUI Installs, TERMS student software system, Office Software, E-Agenda, and Charter Schools.

The Service Desk provides Micro-Computer Technical TLC and DPC support including TERMS data input, E-mail abuse complaints, virus identification and warning notifications, Technology Advisory Council (TAC) coordination, and monthly meetings with vendors to assure warranty accountability. Currently 9 Customer Support Specialists handle the initial call for support and 2 floor supervisors staff the core of the Help Desk. The 3 Customer Service Analysts provide vendor coordination, problem solving, training development, ticket escalation, document development and meeting support.

2004-05 Help Desk/Switchboard Operating Budget

Salaries	845,600
Fringe at 19%	160,700
Total Salaries and Fringe	1,006,300
Other operating expenses	50,300
Total Operating Expenses	1,056,600
CRM module (capital expense)	1,000,000
Grand Total- Help Desk/Switchboard	**2,056,600**

8.0 METRO Services Recommendations

8.1 Continue when purchasing computers, laptops, and printers to secure a contract with 5-year warranty repair protection.

- repair/replacement protection
- quick turn-around time
- parts and service at fixed cost

This recommendation is not applicable if the BCPS moves to a lease format for these hardware items. The rationale for recommending the continuation of the 5-year warranty, rather than 2 or 3 years which would result in a lower purchase price, lies in the fact that shorter warranty periods would require much greater Metro Services as many more items move out of the warranty period. This would require additional staff and substantial new operating fund dollars.

8.2 Expand repair support by creating three Repair Depots at the three Technical Centers, (Sheridan, Atlantic, McFatter) providing Tier one support, involving SBBC students as technicians-in-training.

- enhances student education
- provides hands-on, real world experience
- Workforce Development funds available
- utilizes senior METRO CR technicians as teacher/trainers

8.3 Expand METRO FASTeam, on-site support. The District should look into expanding the FASTeam. Having an on-site support group from the District to provide services that include minor “quick-fix” hardware repair (Tier 2) for all the schools, not just Superintendent Schools. Funds to support this recommendation can come from the 3 technician salaries saved by shifting them to teachers at the Technical Centers (see recommendation 8.2.)

- enhances medium to large scale on-site support, enabling school based tech support personnel to schedule maintenance & upgrade projects with assistance from FASTeam
- allows for periodic LAN maintenance procedures to be carried out at sites with minimal impact to school based tech support personnel
- brings “quick-fix” support directly to the sites, reducing turn-around time

- allows for Tier one, Repair Deport support program to focus resources on more complex repair procedures
- combining METRO CR and METRO FASTeam personnel into field service teams allows for existing METRO technicians to assume a more flexible role in the District's overall support scheme

8.4 Create a parts / service center to provide for ordering, shipping, billing and distribution of repair parts for the three Deport Repair facilities and the FASTeam.

- allows for continuity using existing COMPASS / BRIO interface to track work orders, parts acquisition, financial accountability, measurement standards and billing
- allows for continued use of surplused inventory items for re-cycled, Tier two repair parts, as needed
- provides for a central distribution center for parts / service information (one-stop shopping, ordering, shipping, billing)
- allows for existing METRO CR personnel already engaged in this activity to engage in the new support model with minimum ramp up
- METRO FASTeam and CR would stage operations from this location

8.5 Add a chargeback system for out-of-warranty / non-warranty repairs to ensure that repair requests will be assessed from a cost-to-replace vs. cost-to-repair perspective, at the school level

- allows for school-based decisions on fix / replace based upon actual costs, age and usefulness in the technology scheme at the site
- creates a financial accountability at the school level
- provides incentives for maintenance and upkeep of equipment

Summary:

Presently, tech support for computer equipment is provided through three principal means:

Vendor warranty repairs under contract, for 5 years from purchase date for desktop computers, laptops, servers and printers.

In house (METRO Computer Repair, ETS) repair for non-warranty and out-of-warranty desktop computers, laptops, servers and printers.

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In house (METRO FASTeam) support for on-site workstation software configurations (ILS, applications & Operation System software.) The FASTeam also identifies hardware problems and assists in engaging METRO CR to facilitate repairs. This support is aimed at the Superintendent Schools, exclusively. The FASTeam has proven to be a very effective tool.

Non-warranty and out-of-warranty repairs are classified by Tier according to the level of support they require and the age/usefulness of the equipment. The support Tiers are as follows:

Tier one: comprehensive hardware repair support, including drives, monitors, O/S restores, circuit boards, power supplies, network components, fusers, photoconductors and enclosure hardware, where economically feasible. This level of support is extended to machines with a foreseeable useful life cycle, taking into account processor speed, operating system, networkability, drive space and on-board memory complement.

Tier two: partial hardware repair support, including low-cost drive replacement, O/S restores, low-cost circuit board replacement (using tested, recycled spares) and low-cost generic monitor replacements. This level of support is extended to machines that do not meet the minimum specs for processor speed, drive space, etc, but are networkable and have useful role in technology scheme at the site level.

Tier three: non-warranty repairs resulting from mishandling and/or abuse are not covered by the manufacturer's 5-year warranty. These non-warranty repairs are performed in-house (METRO CR), or they are performed by the manufacturer and facilitated (shipping, billing etc) by METRO CR.

2004-05 Metrology Operating Budget

Salaries	867,400
Fringe at 19%	164,800
Total Salaries and Fringe	1,032,200
Other Operating Expenses	1,006,300
Grand Total- Metrology	**2,038,500**

9.0 "Organizational Menu Options" for School-based Technical Support

Schools in Broward County have put in place a wide range of models for providing Technical Support. Again, the vision and leadership of the school Principal is the most significant factor in determining the level of service within the school. Using models currently in place at various locations, coupled with the other recommendations in this Report, schools should have the opportunity to choose from a series of "Menu Options" and/or develop new models based on existing personnel to enhance technical support within the individual school. The following models include two recommended organizational structures based on existing models, as well as specific models from a sample of Broward schools.

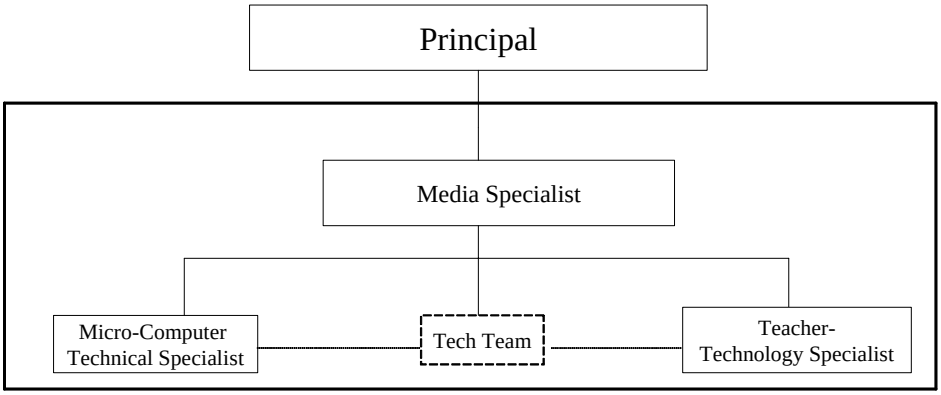
The recommended Elementary/Middle School model combines the outstanding examples of Nob Hill Elementary and Pioneer Middle. In these two schools, the Principals set the vision and provide the leadership for excellent technical support and technology integration. At Pioneer, the media specialist is the overall technology coordinator for the school. She oversees the work of a highly skilled micro-computer tech specialist, the Tech Team, and (in their case full-time) teacher-technology specialist. At Nob Hill, the Principal has built a total faculty of individuals who have completed DETA I, and uses her Tech Team as the backbone for support and integration. Thus, the recommended model for elementary and middle schools combines these two outstanding organizational structures into one.

The recommended High School model is slightly different inasmuch as there is a second Media Specialist and the Teacher-Technology Specialist is full, rather than part-time.

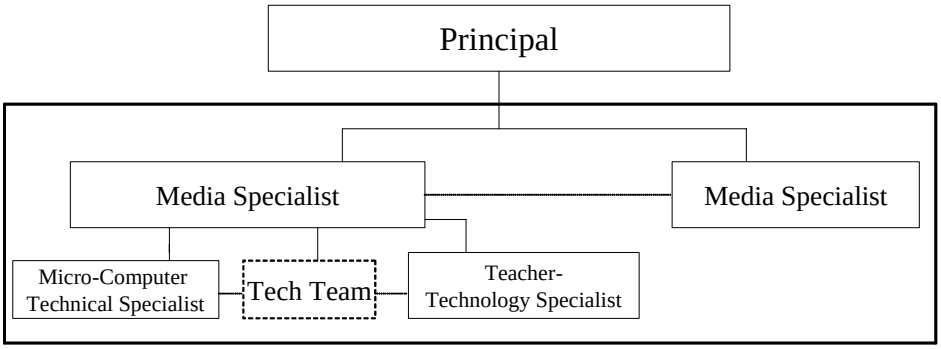
Like any good "menu," however, Principal's can rearrange, add, or delete, based on the needs and human/financial resources available.

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Recommended
Elementary/Middle



Recommended
High School



Principal - visionary
Media Specialist - overall technology coordinator
Micro-Computer Technical Specialist - repairs & service in-house
Tech Team - DETA trained
Teacher Technology Specialist - technology integration coordinator
TLC - appointed from group

10.0 Principal Training Recommendations

10.1 Recommend that principals and other leadership support teams and personnel be provided at least 3 hours of foundations in technology integration and support. This will assist the principal and other leadership support staff in the development of a vision for technology integration into the curriculum and technology support. Topics would include building site capacity through the creative application of budget funds, implementation of DETA and other integration strategies, exploration of technology support models, creation of technology teams and designation of TLC, site-based service level agreements (SLA's), use of various district department support personnel and area instructional technology specialist, and developing a technology plan in conjunction with the SIP that is aligned with the district, state, and national technology plans.

Summary:

The most important aspect of successful and highly effective Technical Support at the school level is the vision and leadership of the school Principal. This became very clear during the site visits phase of the Project, and through interviews with the Area Instructional Technology Liaisons. Principals themselves need not be highly skilled technology users, but when they understand the value of technology to enhancing the teaching and learning process and set in place a comprehensive plan to use technology to improve academic skills, Technical Support flourishes.

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11.0 Media Specialist Training Recommendations

11.1 Recommend a major training program to provide the opportunity for existing Media Specialists to gain the needed skills to meet the criteria of the new job description.

Summary:

Systematically, libraries have changed to media centers as new technology is added to the core collections of books, periodicals, etc. The BCPS enjoy many state-of-the-art media centers, actively using the latest technology and databases to assist students in research techniques, etc. In addition, the School Board approved a new job description for Media Specialists which dramatically increases their role in technology support, integration, and staff development.

Media Specialists
2004-05 General Fund

School Type	Salaries	Fringe
Elementary	7,094,563	1,975,510
Middle	2,182,066	603,392
High	2,566,392	709,402
Centers	240,125	66,864
Adult/Technical	160,083	44,576
	12,243,228	**3,399,744**
	Grand Total	**$15,642,971**

12.0 School Tech Team

12.1 Recommend individuals on School Tech Team complete DETA I (teacher-based) or PRE-DETA (non-instructional).

Summary:

During the data gathering and site visit phases of the Project, individuals overwhelmingly praised the DETA program, developed by the Customer Staff Development Services Department. In fact, as mentioned earlier, the Principal of Nob Hill Elementary School creatively instituted a plan whereby her entire faculty completed the five day, forty hour program. School Tech Team members who complete the program are able to assist in technology integration at a very high level.

Note: Large District Departments may wish to implement this recommendation also.

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13.0 Service Level Agreement (SLA) Recommendations

13.1 Recommend that each school and department develop and communicate a formal process for providing Technical Support to employees, faculty and staff, including:

- How staff members communicate their Technical problems to the appropriate Support personnel within the school/department.
- Setting standards for how much time should elapse before repairs are made or responses given.
- Monitoring system to review number of problems and repairs through the use of the new CRM system (see attachment I. Technology Support Request Process).

Note: The use of the CRM is dependent on the actual installation schedule of the District.

Summary:

During the site visits, it became apparent that formal procedures, whereby faculty and staff contacted technical support personnel within the school, were non-existent. Informal procedures, consisting of e-mails, telephone calls, meeting tech support personnel in hallways, etc. were the norm. Only in the case of one school visited was a template used to request services (Conference in CAB). Further, in no case was the "request for service" included in the Employee Handbook, nor was there any "feedback" system in place to notify the requestor when services would be provided.

14.0 Technology Integration Recommendations

14.1 Development of a 3-5 year school-based technology road map. These plans would be aligned with the new National Technology Plan, the District's technology plan, FL DOE STaR, and NETS. This should be an integral part of the SIP that is revisited, monitored, evaluated and modified yearly.

- Identify models of effective use of instructional technology integration and support in schools. Identify staff development implementations as models of technology integration. Examine consortium work across the U.S. – Seir-Tec, Hpr-Tec, WestEd, NCREL.
- As an extension of the SIP, include technology in the teacher PGP and administrative goals.
- Provide baseline DETA to every school.

14.2 Recommend the ETS department assign an individual with school-based experience to be given the responsibility to implement the recommendations contained in this school & department based technical support project.

Summary:

Though it is not addressed within the scope of this Project, it is difficult to separate technical support and technology integration. The use of technology in schools focus on enhancing teaching and learning at all times. These recommendations would move integration to the next level and provide a foundation from which all schools in the District could move forward.

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Section VIII – Professional Development Plan

INTRODUCTION
Source: IT Blueprint, Section VI, Staff Development and Training, July 16, 2004
2.0 BACKGROUND AND CURRENT STATUS

Proficiency based Model for Staff Development Planning and Management

The National Education Technology Standards (NETS) for teachers and administrators have been adopted and the Division of Curriculum and Instruction/Student Support and Human Resource Development have identified Essential Teacher Knowledge (ETK) proficiencies, which are aligned to the Sunshine State Standards. In addition, all teachers have a Professional Growth Plan (PGP).

Professional Pathways for the Critical Content and Technology is a standards-driven model for instruction. The Florida Education Standards Commission developed a teacher job description including Accomplished, Professional and Pre-professional Proficiencies for Teachers of the Twenty-first Century. The district has embraced this model as part of its professional development efforts.

Staff Technology Proficiencies

As mentioned above, the district subscribes to the National Education Technology Standards (NETS) for teachers and administrators. BCPS subscribes to the State of Florida's twelve Educator Accomplished Practices, which include technology.

Staff Development Programs and Planning

The school board has set high expectations for staff use of technology. In the technology guidelines section of the School Board Policy 5306, School and District Technology Usage, "Appropriate training and professional development must be provided to teachers, staff, and administrators to ensure timely implementation and effective use."

During the needs assessment phase, it was discovered that a strong support structure is in place to provide a wealth of staff development opportunities to teachers and building administrators. Staff development activities focus on specific strategies that utilize technology and ensure access for all learners. Staff development activities use a wide range of delivery methods.

A Web-based teacher technology proficiency needs assessment instrument aligned to NETS standards for teachers is now available to assist teachers and principals with designing professional development activities and developing Professional Growth Plans.

2 "Enterprise Information Technology Assessment Key Findings and Recommendations", pp. 28-44 and pp. 149-168.

8.1

Provisions for increasing the use of technology in the classroom and media center by:

- Development and acquisition of new programs and software that promote the integration of technology into everyday curricular needs;
- The integration of technology as a meaningful component within all curriculum training;
- District-level coordination of training and support;
- Ensuring adequate facilities, instructors, materials, equipment and funding for staff development; and
- Identification and acquisition of technology-based professional development delivery systems that minimize teacher time away from the classroom and delivery of training in the most cost-effective manner.

PROFESSIONAL PATHWAYS

THE BROWARD COUNTY SCHOOL BOARD PLACES A HIGH VALUE ON ITS HUMAN RESOURCES AS THE STRENGTH AND FOUNDATION OF THE ENTIRE ORGANIZATION. PROFESSIONAL PATHWAYS IS A COORDINATED SYSTEM THAT IS STANDARDS-BASED, JOB EMBEDDED, AND FOCUSED ON ADULT LEARNING COLLABORATION. IT SUPPORTS THE BELIEF THAT CONTINUOUS IMPROVEMENT RESULTS IN A FOCUS ON INCREASED STUDENT ACHIEVEMENT AND SCHOOL EFFECTIVENESS. THIS POLICY IS FOR ALL EMPLOYEES, AND SHALL BE A DYNAMIC ONGOING AND SUSTAINED COMPREHENSIVE PROCESS. THIS POLICY IS ALIGNED WITH THE SEVEN STERLING CRITERIA OF LEADERSHIP, STRATEGIC PLANNING, CUSTOMER FOCUS, INFORMATION & ANALYSIS, HUMAN RESOURCE FOCUS, PROCESS MANAGEMENT AND RESULTS. IT IS THE BASIS FOR ESTABLISHING AND MAINTAINING PROFESSIONAL DEVELOPMENT AS A PRIORITY FOR ALL DISTRICT PERSONNEL.

TO FACILITATE THE ACHIEVEMENT OF THE GOALS OF THIS POLICY, THE BROWARD COUNTY EDUCATION CONSORTIUM IS ESTABLISHED AS THE COORDINATING BODY FOR PROFESSIONAL PATHWAYS AND OTHER INITIATIVES BETWEEN THE BROWARD COUNTY SCHOOL BOARD, HIGHER EDUCATION INSTITUTIONS SERVING BROWARD COUNTY, AND AUXILIARY PARTNERS.

AUTHORITY: F.S. 230.22 (1) (2)
Policy Adopted: 8/20/96
Policy Amended: 11/13/01

RULES:

1. **PROFESSIONAL DEVELOPMENT MODEL**. Professional Development must adhere to the following District's Staff Development Model criteria:

    - Identify Content – The knowledge, skills and attitudes to be acquired through staff development
    - Implement Process – Research-based components of staff development
    - Ensure Context – Those internal & external environmental conditions to support staff development
    - Assess Impact - Effect of staff development on student achievement and job performance

    This model of staff development adheres to the following national standards:

    a. Context –
    - Professional development begins with establishing learning communities whose goals are aligned with those of the school and district
    - Professional development promotes leaders who guide continuous instructional improvement
    - Professional development requires resources to support adult learning and collaboration

PROFESSIONAL PATHWAYS

b. Process –

- Professional development uses disaggregated student data to determine adult learning priorities, monitor progress, and help sustain continuous improvement
- Professional development uses multiple sources of information to guide improvement and demonstrate impact
- Professional development encompasses a wide variety of delivery options that are appropriate to the intended goal
- Professional development applies knowledge about human learning and change
- Professional development provides educators with the knowledge and skills to collaborate

c. Content –

- Professional development prepares educators to understand and appreciate all students, create safe, orderly, and supportive learning environments
- Professional development holds high expectations for student achievement
- Professional development deepens educators' content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately
- Professional development provides educators with knowledge and skills to involve families and other stakeholders appropriately

d. Assessing the impact of staff development is embedded in the National Standards,

2. **PROFESSIONAL DEVELOPMENT STANDARDS**. All professional development must be in alignment with the national standards regarding context, process, and content, and it must be continuously assessed to evaluate its impact on student achievement and staff effectiveness. These standards include the following:

a. A long-range vision/focus on:
   - Student achievement based on well-defined outcomes
   - The district's mission and strategic plan
   - District and zone priorities
   - School/department improvement process and plan
   - School/department mission
   - Professional development's national standards
   - Individual performance and growth

b. A process of on-going **identification and analysis of adult learning needs** which is determined by:
   - Individual professional growth needs
   - A school/department needs assessment (e.g. School Improvement Plan)
   - Self-evaluation
   - Target areas
   - Data (when appropriate)
   - Content and process

c. A system for **the selection of effective research-based professional development opportunities** which:

PROFESSIONAL PATHWAYS

- Meets the needs of participants
- Is based on specific criteria
- Impacts student achievement and school/department effectiveness
- Adheres to the district's Professional Development model
- Supports the needs of the school/department
- Provides a focus for the school/department

d. The identification of a professional development plan that addresses school/department needs:
   - Based upon the school/department improvement plan
   - Developed by a representative group of stakeholders
   - Supported by adequate resources obtained through internal and/or external sources
   - Designed to provide a continuum of learning over a designated period of time of at least one year
   - Inclusive of technology training needs
   - Inclusive of a recognition/reward process
   - Inclusive of alternate delivery methods
   - Inclusive of collegial learning communities
   - Inclusive of building capacity within the school/department

e. An **organized system** of adult learning which will ensure that:
   - The superintendent establishes a district focus on learning
   - The principal/department head establishes a focus on learning
   - The principal/department head provides time for learning
   - Leadership is aware of adult change readiness stages (awareness, acceptance, ownership and internalization)
   - Leaders will facilitate dialogue about change
   - Adult learning is aligned to the district's mission, strategic plan, and school/department improvement plan
   - There is a commitment to a professional development continuum which incorporates adult learning styles
   - There is a system for identification and analysis of supervision and peer evaluation
   - Interested individuals have the opportunity to develop a professional growth plan, however, it is a state mandate that all teachers have a professional growth plan
   - Research-based models for learning utilizing (theory, demonstration, practice, observation, coaching, feedback)
   - Each school/department has identified staff certified through the Staff Developer Series offered by the Human Resource Development Department as on-site trainers
   - Acquired learning is shared with others

f. A systematic process and procedure for **accessing resources** for professional development (e.g. time, flexibility, money, human resources, materials, research, best practices, technical assistance) which will:
   - Utilize existing resources
   - Redirect existing resources
   - Access new resources from varied funding sources

PROFESSIONAL PATHWAYS

g. A system for **continuous evaluation** of professional development for district departments and individual schools. The system will provide for the collection of data which measures:
   - Immediate participant reaction to training
   - Knowledge gained from training
   - Application of learning
   - Sharing of knowledge with colleagues
   - Impact on student learning (3-5 years) including benchmarks of progress
   - Return On Investment (ROI) which feeds back to the selection and compensation system
   - Integration of results into the organization for accountability purposes

3. **PROFESSIONAL DEVELOPMENT GUIDELINES**:

   a. Professional development initiatives will be assessed for effectiveness in achieving strategic plan goals
   b. Schools and zones, with district support, are responsible for developing a core of trainers and facilitators to implement their initiative
   c. All new district initiatives will be supported by a professional development plan when appropriate
   d. A system will be established to review models, disseminate programs and resources, and serve as a clearinghouse throughout the district
   e. Each school/department will articulate a process for staff development in its improvement plan
   f. A continuum of professional development will be provided for the specialized orientation and training needs of role-alike groups
   g. A system will be maintained to publicize, record, track and evaluate all formally initiated professional development activities

4. The Superintendent shall establish and maintain administrative procedures for implementing the Broward County Education Consortium.

5. The Superintendent has established a district Training & Development Ad-Hoc Committee that will address the development of a noninstructional continuum.

6. A continuum of professional development for the training needs of instructional staff will be established as a means of attracting and retaining classroom teachers. (See attached Professional Pathways: A Continuum of Instructional Professional Development chart.)

   a. The continuum consists of four stages of professional development which include:
      - Pre-Professional/Foundation Stage –a field experience or student teacher who is exploring their commitment to the teaching profession
      - Professional/Application Stage – a teacher who is beginning to put theory into practice and test his/her classroom skills

PROFESSIONAL PATHWAYS

- Accomplished Practice Stage – a teacher who has reached the level of impact in the classroom and is able to routinely implement strategies that increase student achievement
- Teachers as Leaders Stage- a teacher who is able to demonstrate mastery in the classroom and continuously reflects on improving their skills

b. The Pre-Professional through Accomplished Practice stages of the continuum will be based on the state's 12 Educator Accomplished Practices which are:
- Assessment
- Communication
- Continuous Improvement
- Critical Thinking
- Diversity
- Ethics
- Human Development and Learning
- Knowledge of Subject Matter
- Learning Environments
- Planning
- Role of the Teacher
- Technology

c. The Teachers As Leaders Stage will be based on the National Board for Professional Teaching Standards' Five Core Propositions on what teachers should know and be able to do. They are:
- Teachers are committed to students and their learning
- Teachers know the subjects they teach and how to teach those subjects to students
- Teachers are responsible for managing and monitoring student learning
- Teachers think systematically about their practice and learn from experience
- Teachers are members of Learning Communities

d. The district will establish, and/or align support systems/programs to assist instructional staff at each stage of the continuum
There is a minimum requirement of three years as a classroom teacher in order to achieve the national certification candidacy stage of the continuum

The School Board of Broward County, Florida

Professional Growth Plan

The Professional Growth Plan is required pursuant to Florida State Statute 1012.98(4b)(5)

Last Name	First Name	MI

School	
School Year	2005-2006
Administrator	

Student performance data
Prior to attending any staff development event, what is the previous year's baseline data on student/school needs?

Review all data from the previous year for current students. Review the Sunshine State Standards. Prioritize area needing to be strengthened. Pick one area. The statement should include % of mastery, the skill and the type of assessment used for the baseline data

Goal to enhance/improve student performance
What is your SMART (Specific, Measurable, Attainable, Reasonable, Time-Bound) goal aligned to baseline data?

By May 2006 (# or %) of students demonstrated an increase of (# or %) in

(Content Area) as evidenced by

(Type of Assessment)

Staff Development Objective
What do you want to be able to learn that will positively impact your students' achievement?

Write a statement identifying what is to be learned that will impact student achievement and align with the goal. Your objective should reflect the School Improvement Plan or personal development.

Staff Development Events
What is the specific focus of the event(s) you will attend to meet your objectives

Select events from the Yearlong Staff Development Matrix 2005-2006 OR school-based staff development.

- ❑ Art
- ❑ Behavior Management
- ❑ Classroom Management
- ❑ ESE
- ❑ ESOL
- ❑ Foreign Language
- ❑ Guidance
- ❑ Health Education
- ❑ Instructional Strategies
- ❑ JROTC
- ❑ Language Arts
- ❑ Library/Media
- ❑ Mathematics
- ❑ Music
- ❑ Physical Education
- ❑ Reading
- ❑ School To Career
- ❑ Science
- ❑ Social Studies
- ❑ Technology
- ❑ Vocational
- ❑ Other

PGP Initiation Date

Administrator's Signature

Performance Outcome(s)
What was the impact of the staff development on student achievement?

Summarize data captured from assessment instrument in goal describing how staff development impacted student achievement.

PGP Final Review Date

Administrator's Signature

BROWARD COUNTY PUBLIC SCHOOLS

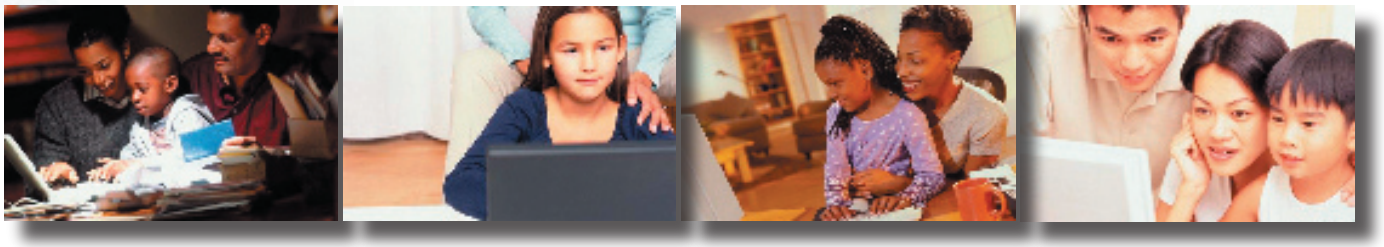


CHANGING THE LEARNING ENVIRONMENT FOR OUR STUDENTS: VISION INTO ACTION

REPORT BY:
THE DIGITAL NATIVES COMMITTEE

SCHOOL BOARD RETREAT

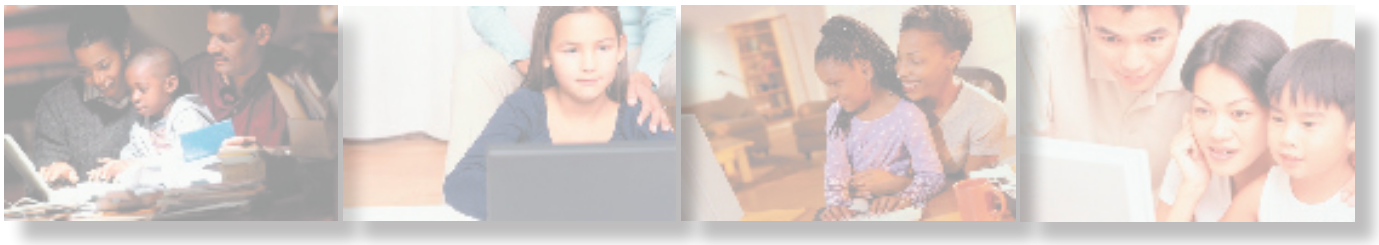
April 13th, 2004



BROWARD COUNTY PUBLIC SCHOOLS

Digital Natives Committee Members

Dr. Earlean Smiley
Mary Baker
Nancy Barba
Leon Clinch
Angela Coluzzi
Michelle Ellison
Dr. Robert M. Elwell
Dr. Jeanine Gendron
Rose Hobbs
Sally House
Terri Kingsley
Doug Pearce
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Jeff Stanley
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Planning Document

Changing the learning environment for our students: Vision into Action

Executive Summary

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3.5 Digital Curriculum and Content
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Appendix A: Policy Considerations: Tri-County Presentation
Appendix B: Matrix of Nationwide 1:1 initiatives (forthcoming)
Appendix C: Technology Goals and Objectives
Appendix D: District Strategic Plan
Appendix E: Educational Computing Solutions for Students
Appendix F: Single Site Composite Cost Analysis

Executive Summary

The Curriculum and Instruction/Student Support Division was charged with drafting an Instructional Technology Planning Document. To implement this charge, an informal group called the Digital Natives was brought together to continue the work previously presented to the School Board on November 25, 2003. Specifically, the group was charged with presenting ideas and recommendations that would assist Broward County Public Schools with implementing its vision. Therefore, this document sets forth the vision for the role of instructional technology in the curriculum and instructional programs of Broward County Public Schools. The goal of the document is to provide initial steps to assist in reaching the vision of empowering students to become lifelong learners capable of using technology for critical thinking, problem solving, virtual learning and increasing student achievement. From this stage, these ideas will need to be reviewed by representatives of key stakeholder groups for input including the Technology Advisory Committee, principals, teachers, students, parents, district staff and other community members. *Importantly, while there is funding to complete an initial study, long-term implementation would require substantial funding commitments.*

This document aligns with the current 2002-2007 Information Technology Plan, Technology Goals and Objectives, the district adopted Strategic Plan goals and objectives, No Child Left Behind mandates in relation to technology literacy and highly qualified teachers and 21st century skill development for students. Once the new strategic plan is adopted, this document will be aligned to its goals and objectives.

The Instructional Technology Planning Document outlines initial steps that can assist BCPS with reaching its long-term vision. This document was developed by SBBC staff who understand the culture of the institution and also have passion for the district's mission. On the other hand, the IT Blueprint will be a long-term operational plan that supports the district's instructional technology vision. The development of the IT Blueprint brings in outside expertise from CELT to work with staff to apply best business practices to the operational side of the district's technology program. It will address infrastructure issues ranging from capacity planning to quality assurance to comprehensive technical support. **These two efforts are intended to move forward in tandem. In fact, they will naturally align to support Broward County Public School's vision into action.**

Major points discussed in this document include:

1. **Digital Learning Environment Study**. This initiative would engage school-based administrators and teachers in a Plan, Do, Study, Act cycle to reveal the issues and impact of transitioning to a digital learning environment. Part of this study would include creating "test sites" that provide access to technology to students on a 24/7 basis.

2. **Curriculum Development/Instructional Management:** This initiative initially creates a single access point for curriculum and instructional resources for all teachers and over time will be available to students, parents and administrators.
3. **Staff Development:** This initiative would expand the existing comprehensive technology integration staff development programs offered by the district for teachers and administrators.
4. **Leasing vs. Purchasing:** This issue explores leasing as an option to procure hardware as a potential cost reduction alternative and as a method of addressing obsolescence and disposal of computer hardware.
5. **Re-designing classrooms:** This section provides initial ideas on how the physical classroom might be re-designed to meet the needs of an educational system that supports BCPS vision for future learning.
6. **Curriculum Resources**: This section looks at the issue of standardizing on the curriculum tools and software available to schools to ensure consistency of education for all students in BCPS.
7. **Cost Implications**: This section gives preliminary cost figures for the proposed projects.

It is apparent that implementation strategies will be a joint responsibility of school and district staff, business partners and community members working together towards a mutually shared vision. While this document provides a starting point, it is again important to note that success can only occur with the active participation and support of the entire community that is called the "Broward County Public Schools." Therefore, the next steps in this process are to engage the BCPS community is an active dialogue around the key premises being proposed.

1.1 Background

From 1996 to 2001, Broward County Public Schools embarked on an ambitious five-year Information Technology Plan focused on providing all schools and district sites with a state of the art technology system. The School Board's commitment to implement this technology system is grounded within School Board Policy 5306 that states, "Technology will be appropriately and equitably integrated into instruction and management and used by all students and staff as an integral component of school improvement and student success." Initial system implementation strategies in the Information Technology Plan focused on meeting the needs of the school and district in two major areas:

1. Providing a modernized networked environment that would interconnect all schools and district sites into a single communication and information exchange system.
2. Providing a baseline of hardware, software and training that would enable schools to begin to effectively utilize the capabilities of the networked environment for teaching and learning.

As a result of the first five-year Information Technology Plan, all schools are connected to the district's Wide-Area Network and every permanent classroom has Internet access. In addition, permanent classrooms were provided with a telephone, a minimum of two computers and a printer. Over 50% of classroom teachers were provided with a laptop computer and a variety of software applications are available for teacher use. The training of teachers, administrators and support staff in the utilization of the technology supplied has been provided by a variety of district and school programs and initiatives.

While significant progress has been made, the major goal from 2001 is, and continues to be, to effectively utilize technology in the teaching and learning process for student achievement.

Federal legislation under the "No Child Left Behind" Act of 2002 has also significantly impacted the direction of technology integration in Broward County Public Schools. NCLB specifically states that by 2006 every student will be technology literate based on national educational technology standards.

Technology planning, staff development and training in the educational use of technology are crucial factors in determining the effective use of technology in the learning environment. Several steps have been taken to provide opportunities for teachers, staff and principals to improve their knowledge, skills and abilities and to plan effectively for technology integration. In addition, several district initiatives have contributed to providing web-based resources to assist teachers and administrators with using technology as an integral part of the teaching and learning process.

1.2 Accomplishments

Over the past two years, several major initiatives have contributed to the creation of a digital learning environment for teachers and students. The programs listed are examples of these collaborative, inter-departmental efforts:

Learners and Learning

- **Atomic Learning** provides "just in time" training in basic technology literacy skills. Teachers, students, parents and staff use this system to assist students in meeting National Educational Technology Standards. Along with this initiative, a teacher-focused staff development program has been designed in an effort to meet No Child Left Behind guidelines and to assist teachers with incorporating National Educational Technology Standards for students into curriculum delivery. During an intensive three-hour session, instructional staff are engaged in student-centered learning strategies while embedding this resource deeper into their existing lesson plans as well as gaining access to new ones. Upon completion of staff development, participants have the necessary resources and skills to facilitate a similar training activity with their peers. This serves as their follow-up activity and assists with bringing this resource to schools. http://broward.atomiclearning.com

- **Broward Virtual Education (BVEd),** Broward's online high school, delivers online courses "anytime, anywhere" to students. . BVEd offers 33 regular and honors level courses and eleven advanced placement courses. Students can take online courses while taking traditional courses at their school. Students can also be full-time online students. http://www.bved.net

- **Broward's distance learning** program is a major contributor to virtual education with over 120 video-conferencing units, nine academic high school courses, 1,250 academic programs, field trips and special events for elementary, middle and high school students. In addition, staff development opportunities have continued to increase with such offerings as: National Board Certification workshops, ESE training and meetings between Curriculum Supervisors and their department heads.

- **Adaptive Technologies** are pervasive throughout our schools. Students with special needs have available to them a variety of technology tools to assist with their learning. The ESE department provides extensive staff development to support the effective use of adaptive technologies through both online and traditional delivery of instruction. A Universal Access Grant provided many of our schools with accessible computer stations in media centers.

- **Virtual Technology Recognition Project** is an opportunity for educators in Broward County to share technology-enhanced lesson plans and curriculum projects that focus on the Sunshine State Standards (SSS) and the National

Education Technology Standards (NETS). All projects are accessible through a web-based database that can be accessed by all teachers at: http://www.broward.k12.fl.us/etscsds/bestpractices

- **Textbook adoptions** took a new spin this year towards the digital world when the technology components of each textbook were considered as part of the selection process. Now, digital resources aligned to textbooks are available in the areas of mathematics and language arts. The technology related components are the first steps in providing state adopted digital curriculum that is aligned to Sunshine State Standards.

Educator Competency and Professional Development

- The **Digital Education Teacher Academy (DETA)** is a district-wide professional development program in partnership with the Teaching and Leadership Center @ Florida Atlantic University for "retrofitting" teachers to integrate technology into the curriculum. Since its inception, this partnership has facilitated 59 sessions with 907 participants. In addition, the DETA Learning Community provides support for teachers who have completed one or both DETA courses. The Learning Community meets monthly at various schools throughout the county. Each Learning Community session is designed to focus on a technology integration skill that will help DETA graduates keep the "digital fires" alive in their classrooms. In addition to attending monthly learning community sessions, participants share best practices using Blackboard, an online course system. http://web/deta

- The **New Teacher Academy** assists teachers in utilizing the technology tools and curriculum available at each school. Through this program, new teachers are introduced to the technology available to Broward County teachers. http://web/hrd

- **SBBC Virtual University** provides online staff development to teachers in the areas of classroom strategies and course content. These in-service courses are designed to provide educators with the opportunity to participate in staff development training at their convenience. SBBC Virtual University (VU) now provides training yearly to some 4000 teachers from Broward schools, Broward Charter schools and private schools participating in Federal grants. By the fall of 2004, SBBC-VU will have more than 90 courses for instructional staff designed and developed by district employees. SBBC-VU now offers a fully functioning online registration system, complete with instant notification. Starting in the summer of 2004, the district will offer its reading endorsement training online (11 reading courses). SBBC-VU has established 30 learning communities that are moderated by National Board Certified Teachers and Broward Guild Member Teachers.
http://www.broward.k12.fl.us/ci/virtual_university

Accountability

- The **Data Warehouse** has dramatically changed the way Broward educates students and propels them to achieve beyond what was previously thought to be attainable. Data Warehouse use permeates nearly every aspect of reporting, monitoring, class management, test score improvement, and student counseling. What was once a data starved organization—is now data driven. The focus of the Data Warehouse project is to provide administrators and teachers with access to the kinds of student performance information they need in order to support individualized educational planning, instructional design decisions, and school improvement planning at the local school level. http://www.broward.k12.fl.us/dwh

- A new dimension of the Data Warehouse, Broward School's **Virtual Counselor** provides administrators, teachers, students, and parents with easy access to the data warehouse with only a web browser. Providing a user-friendly web interface, Virtual Counselor enables teachers and school administrators to access the data they need to customize the educational environment and allows students and parents to take ownership of their educational records. Teachers are able to easily view student test score information and have it linked to online technology-based lesson plans aligned to the FCAT subtests for use in their classrooms. High school students are able to track valuable graduation progress information to make sure that information critical to the college application process like grades, test scores, service learning hours, etc., have been properly recorded. **Virtual Counselor** is a tool that is constantly being improved. http://www.browardschools.com/virtualcounselor

- At the start of the 2003-2004 school year, the **Academic Improvement Plan** (AIP) was added to Virtual Counselor, converting a previously paper and pencil form to an electronic format. Now AIPs will be centrally stored, tracked, updated and available to all schools as students move around the district.

- Cypress Bay High School will be testing a new process that will allow all of their students to enter their course requests for the 2004-05 school year using **Virtual Counselor**. This is the next step in supplementing the role of the guidance counselor in the schools by automating routine functions.

- This year, the district created and administered it's own **benchmark assessment** test (BAT) to students in all grades 3-10. The purpose of this assessment was to provide schools with data that could be used to guide instruction as an indicator of academic achievement. It also acts as a predictive indicator of how students would perform on grade-level FCAT if FCAT were to be given on that date. The tests, administered in September and December, were scanned and scored locally with results reported to

school staff via the Data Warehouse and Virtual Counselor. An analysis of the results of the BAT test found a high correlation with FCAT 2003 data. The scores will be analyzed in relation to FCAT 2004 data for validity and prediction confirmation once that data is available.

Technology Administration and Support

- Technology integration courses for administrators are now being offered through the Human Resource Department Leadership Development for Lead Teachers, Assistant Principals, and Intern Principals. A new electronic tool called the **"My Electronic Portfolio"** provides a web-based system has been developed by TLC@FAU in collaboration with HRD leadership development and administrative procedures department for the purpose of documenting the application of highly effective educational practices of school administrators. Administrators use this tool to create, maintain and update their professional portfolios on the Internet. "**My Electronic Portfolio"** is an instrument to exhibit benchmark performance to elicit feedback, discussion and self-reflection.

- The School Technology and Readiness Survey (STaR) solicits responses from K-12 principals about technology and its utilization at their respective schools. The results are incorporated into the School Improvement Planning annually. This provides valuable data to be used for school and district technology planning and for federal reporting required of Enhancing Education Through Technology (E2T2) grant recipients. www.starsurvey.net

Technology Capacity

- Laptop computers are becoming available to all teachers.

- Currently, students use computer labs, wireless carts, media center resources, classroom computers and other digital devices in the teaching and learning process.

- All Local Area Networks (LANS) administered by ETS are consistent in design, documentation, installation and maintenance. BCPS is considered "best in class" for LANS in K-12 public schools (CELT, 2003).

- A resource bank of online lesson plans, curriculum maps, internet-based curriculum and student achievement data is now available to the classroom teacher to assist with technology integration.

Communication

- **Communicating Across Broward (CAB)** is the district's new centralized system enabling all employees to send and receive messages, maintain events and tasks in a calendar. The most popular and well-received component of the

system is conferencing. This provides users with the ability to collaborate via threaded discussions on specific subject matters. http://web/cab

- Fifty members of the **National School Board Association (NSBA)** spent two and one half days in Broward County Schools getting a first-hand look at how technology is improving student achievement. The group, composed of superintendents, chief operating officers, teachers, parents and school board members from across the country, visited classrooms throughout the county to observe students and teachers actively involved in using technology in the teaching and learning process.

1.3 Data Collection Methods

Background information needed to draft this planning document was collected from the following sources.

- Feedback on various instructional technology initiatives from the Technology Advisory Committee (2000-2003).
- Research from the literature on the role of education in future schools and one-to-one computing initiatives in the United States.
- An analysis of the Florida Department of Education STaR (School Technology and Readiness) survey data for schools in Broward County.
- Evaluation reports from the Broward Virtual University and Digital Education Teacher Academy initiatives.
- Site visit to Henrico County, Virginia by Broward Staff. Henrico is implementing a one-to-one initiative in its middle and high schools.
- The District Information Technology Plans from 1996 to 2001 and from 2002-2007, including section 8.1, professional development.
- CELT assessment report, 2003.
- Curriculum Development/Instructional Management Conceptual Design Paper, SBBC, 2000.
- Conversations and meetings with various financial agents on leasing and Total Cost of Ownership.

The purpose of the data analysis was to:

- Identify accomplishments in the current instructional technology program.
- Prioritize near-term technology initiatives
- Identify challenges and potential barriers.
- Identify the alignments with the IT Blueprint process.

1.4 Identified Challenges

In order to implement a comprehensive instructional technology focus throughout the district, several challenges need to be addressed on a continuous basis:

- A shared vision of instructional technology in the classroom needs to be continuously communicated to district and school leadership and instructional staff.
- Teacher and student technology literacy will need to continuously be incorporated into the school improvement planning process to meet No Child Left Behind mandates.
- "Digital Divide" issues must be addressed so that all students have equitable access to technology during and beyond the school day.
- The community must understand and embrace the district's instructional technology vision.
- The business community must understand and endorse the district's instructional technology vision.
- Our higher education partners must understand and support the district's instructional technology vision.
- There is not a systematic plan in place for building capacity of technology support and curriculum integration in the schools and district offices.
- There is no system of accountability to ensure that teachers are integrating technology into classroom instruction.
- Funding has to be identified over the long-term to sustain the technology investment.

The data analysis indicates that, while significant progress has been made, the major challenge for BCPS is to systematically use technology effectively in the teaching and learning process. The district must continuously improve and support the systemic utilization of technology in the classrooms to positively effect student achievement. This planning document will assist in this endeavor.

2.0 Vision of the learning environment of the future

New technologies raise great expectations. The exponential rate of technological advances demands that school districts prepare students for the future with the 21st century skills to access and evaluation information from a variety of digital sources. The vision for Broward's digital natives and its digital immigrants lies within the bounds of this very core belief. *Broward is undergoing a remarkable transformation, and the vision is to close the gap between how students live and how they learn in school.* This is also essential if we are to provide equal opportunities for our students as it becomes apparent that students without access to technology at either school or at home will be at a disadvantage in 21st century society. Therefore, providing students with routine and regular access to technology both from school and home will be an integral part of the educational plan.

Broward's digital learning environment aligns with Istances (2002) Re-schooling concept. Transforming the culture of Broward's schools into ***Community Learning Centers*** with 24/7 learning opportunities, unleashes time as a constant and repositions it as a variable creating a new phenomenon of learning which goes beyond the "Limits of the Known." The boundary lines of traditional opening and closing times, row-to-row classroom learning environments, daily didactic instructional delivery methods are erased. Instead, flexible scheduling of classes allows students to learn during and beyond calendar time, the Internet allows learning to continue "anytime, anyplace", and a re-designed learning environment provides an interactive venue for students to collaborate. In fact, this technology rich environment connects students and teachers to a wealth of information and curricular content and allows them to communicate with each other and anyone else from a large network of learning specialists.

A highly technical learning environment offering a variety of learning options takes the best of the future scenarios, integrates the research on the growth and development of today's students and incorporates 21st century skills with various learning modalities. In such a setting teachers are able to customize learning pathways to meet the individual needs of all learners. One might envision an area for small group presentations with a permanently set up video projector device and a laptop. Students use technology to present their understanding of subject knowledge and learning stations accent areas of the environment where technology tools play a role in teaching reading, mathematics, social studies and science. Students with a well-rounded understanding of subject content and an atmosphere of discovery, deep thought, reflection, participation and interaction are given opportunity after opportunity to grasp concepts and demonstrate proficiency within the comfort zone of their own unique virtual learning sphere. The teacher is facilitating and coaching the learning and has a firm understanding of each student's learning needs because she has immediate access to data to assist in grouping, planning and delivering learning programs. Students are "techdextrous" to coin a new phrase, due to their technological versatility. The public school learning experience comes equipped with one-to-one computing, virtual learning delivery systems, and digital learning devices (laptop or new device) that give students access to information in and from digital

formats. The expectation for these "digital natives" is nothing less than mastery of 21st century skills.

Parents have immediate access to information on the progress of their children, colleges and universities, financial aid opportunities, online training, and school information. More importantly, parents can now use the same instructional resources their children are using at school so parents can continue the learning process at home. In addition, parents can readily communicate to teachers and school staffs and benefit from the global power of the Internet.

Imagine students taking classes via an online environment where participation in full-time online instruction or a combination of online and traditional classes is common practice. Since student-to-student interaction is also an essential component of learning, students will have opportunities to join learning community networks and work together on group projects and activities. The critical 21st century skills that are central to student development include: becoming team players, taking on leadership roles, being critical thinkers, having good interpersonal skills and being active citizens in the community. These skills are also advocated by business organizations (SCANS report) and reflect the skills needed in a global working environment.

Technology is seamlessly integrated into all instructional and management operations because a well-trained and efficient support level of staff is provided. Visionary leaders have embraced new roles as futurists, lifelong learners and have transitioned into "digital natives" themselves. They are at the helm of these learning environments, guiding the continuous improvement of instructional, non-instructional and technical operations that are impacting the daily life of all stakeholders – directly and indirectly. These visionary leaders learned the lesson of the ages: *that having a highly efficient and effective technology support system is paramount to the successful creation of this new digital learning environment.*

In the end, the ultimate result of the vision is that all students are succeeding at high achievement levels and are part of an engaged, active learning community known as Broward County Public Schools.

3.0 Implementation of Vision – Digital Learning Environment Study

Transforming the nature of teaching and learning in Broward County Public Schools will involve examining current and longstanding patterns of values, beliefs and traditions that have been formed and accepted over the course of the history of the district. In order to effectuate this change, the district needs to provide the appropriate digital foundation and strategy with such things as digital content, digital curriculum, and technical support. Then each school will blend the foundation with its own local needs to map out a course to translate this vision into reality.

Change is not easy, and the implementation of a digital strategy across the district must be woven into school environments that already are full with mandates and accountability. Therefore, it is suggested that there are two concurrent "next steps" in the near-term. These two projects will take one school year to complete, and combined they will provide data and input for effective decision-making for a multi-year instructional technology plan:

1. **School-based administrator, teacher and parent study groups**
2. **A minimal number of test sites to create a digital learning environment**

The first effort is to engage school-based administrators, teachers and parents in study groups to dialogue about the district's instructional technology plan. School-based staff would have the role of implementing an instructional technology plan in the classroom, and they represent the group where the "rubber meets the road." Therefore, they are best positioned to find "synergy" between an instructional technology plan and instructional practices. District staff must support these study groups and a plan will need to be developed to define the outcomes. The plan must provide incentives, such as teacher stipends for hours beyond contract for their participation. This represents the "Plan" stage of the Sterling Plan-Do-Study-Act process.

The second effort would be to establish a minimal number of schools as test sites (1-4) in order to gather data. ***These schools would implement as many components of the instructional technology plan as possible, such as age-appropriate personal learning devices, redesigned classrooms, and electronic textbooks.*** Data from implementation at these test schools would feed into the study groups. Data and evaluation of these test schools, which is the "Do" stage of PDSA, would be used to refine the instructional technology plan in the "Study" stage. The "ACT" stage would conclude with the development of a multi-year instructional technology plan, a formal public vetting process, and fiscal plan. Data would reveal the issues and impact of the following factors, as well as identify other implementation issues:

- Community Involvement
- School Leadership
- Learning Environment
- On-going professional development
- Digital curriculum and content
- School/District Based Technology Support

The following section delineates the factors that would be addressed in this "digital learning environment" study process.

3.1 Community Involvement

Research confirms that successful school reforms that require changes to current practices must have full community involvement and support. Studies also show that new innovations are relatively easy to start, but difficult to sustain, and a comprehensive examination of all aspects by the community is a critical element for success.

3.2 Role of Leadership

As the research literature confirms, leadership is the single most important factor affecting the successful integration of technology into the curriculum. In particular, school leadership supports the integration of technology and is able to recognize effective practice when it is occurring in the classroom. Accountability for technology integration for both administrators and teachers is key to success. Teachers need to know the expectations for utilization of technology for student achievement. In addition the leadership needs to communicate the vision and to produce an atmosphere in which teachers feel safe in developing new teaching styles. SBBC professional development for administrators must address the ability to direct, guide and evaluate the effective use of technology as an integral part of student achievement. In a preliminary evaluation report that was recently completed in February 2004 by the Teaching and Leadership Center @ FAU in collaboration with the HRD/Leadership Development found that proficiency in technology integration, instructional leadership, policy/contracts, curriculum, legal issues, strategic planning/school improvement and resources are required for excellence in school based administration.

3.3 Digital Learning Environment

The challenge faced by educators is to utilize and channel the power of rich media and communications/collaboration in the teaching and learning processes taking place in classroom settings every day. By correctly deploying technological enhancements in its classrooms, Broward Schools hopes to "remodel" the classroom experience, captivating student's interest and imparting skills and knowledge in new more relevant ways. Improvements in student achievement are expected to follow. So the question arises, "What will this new learning environment look like?" Broward educators, as a part of the visioning exercise currently underway, have drawn a conceptual draft of what this new world might look like. The information below lists the components of the remodeled learning environment and intends to draw the links between what would be provisioned, how teachers will be able to teach, and how students will learn – all in ways that reflect the media rich world around and build upon core concepts of pedagogy. The table below provides a comparison of the traditional to the new learning environment

TRADITIONAL LEARNING ENVIRONMENTS	NEW LEARNING ENVIRONMENTS
From	To
Teacher-centered instruction	Student-centered Instruction
Single-sense stimulation	Multisensory stimulation
Single media	Multimedia
Isolated work	Collaborative work
Information delivery	Information exchange
Passive learning	Active/Exploratory/Inquiry-based learning
Factual, knowledge-based learning	Critical thinking and informed decision-making
Reactive response	Proactive/planned action
Isolated, artificial context	Authentic, real-world context

Another key concept is that the face to face teaching activities in the remodeled classroom need to be enhanced – to leverage the availability of new teaching tools that much more dramatically appeal to student's eyes and ears. To this end, the inclusion of the following modifications and enhancements are being proposed for the "remodeled" learning environment.

- A digital device for each student (varied by grade level / program)
- A laptop computer for each teacher
- Overhead, Ceiling-Mounted Multi-media Projector
- Interactive White Board
- Mounted Speakers – Sound Amplification System
- Multiple Media Input Options in Teacher Control Panel
- Campus-wide Wireless Network Connectivity

These technical components each have a variety of features that are not delineated here in this summary. However, it is important to note that each feature is included because of the benefit it brings to engaging students and complementing the diverse learning styles of all students in Broward classrooms.

3.3.1 On-going Professional Development

Teachers who are highly qualified to integrate technology into the curriculum can maximize the utilization of the digital tools and curriculum content to improve student learning. In addition, teachers need to expand their teaching strategies to include more constructivist approaches that actively involve students in their own individual knowledge and skill attainment. The on-going professional development of teachers is a joint responsibility of both the school district and the individual school. A rich program of staff development offerings delivered through a variety of online and traditional methods will greatly assist teachers with seamlessly using technology in the learning environment. Opportunities for staff development through the district will be presented in section 4.5. Research indicates that a school's staff development program that focuses

on mentoring, coaching, modeling and connecting teachers through learning communities fosters an atmosphere of team building, support and sharing of best practices.

3.5 Digital Curriculum and Content

Section 4.4 of this report provides an overview of some the digital curriculum content and productivity tools currently used in the schools and the need to standardize on major curriculum systems. This content needs to be delivered through a single, web-based interface to maximize the effectiveness of its use for student achievement.

3.6 Site-based Technology Support

As part of the IT Blueprint process, a project entitled, "IT Staffing and Organization" will develop and implement a comprehensive staffing and organizational development plan for IT management/support at the school, area and district level including the help desk function. This project directly supports the goals of the Instructional Technology Plan and will be a major initiative that will ensure success of the overall district technology program.

3.7 District Support Projects

This section attempted to delineate the major issues surrounding the changing of the school culture. The district proposes to support the schools efforts to create digital learning environments through the following projects:

1. Curriculum Development/Instructional Management (CD/IM) Development and Deployment.
2. Digital Education Teacher Academy program
3. HRD Leadership Development Program
4. Broward Virtual University
5. Broward Virtual Education (online school)
6. Home/School Computer Connection projects
7. Procurement of major curriculum resources and productivity tools
    a. Electronic Gradebook
    b. Internet-based integrated learning systems
    c. District wide licensing for curriculum resources
8. Procurement of end user equipment for instruction
9. CELT project addressing site level technical support
10. IT Blueprint projects related to infrastructure upgrades

4.0 Implementation of Vision: District Support

District leadership and support is essential to implement any change process. This section describes several areas in which the efforts of a united leadership focused on reaching the same shared vision is needed.

4.1 Policy Implications

As the district moves forward in a new teaching and learning environment, it becomes important to address pertinent policy issues. The presentation included in Appendix A outlines some of the related policy issues that were discussed at the Tri-County meeting, held December 15, 2003, with Broward, Dade and Palm Beach County. The collaborative effort made a first attempt at addressing common issues for integrating technology in teaching and learning. The discussion centered on teacher evaluation, student use of technology, funding issues, and sustaining a technology culture.

The district must continue to address various policy implications and appropriate changes should take place as the shared vision is adopted throughout the district.

4.2 Technology Alignment

4.2.1 Lease vs. Purchase of Hardware

To date, BCPS's procurement practice has been to purchase computer equipment (including desktops, laptops, printers, and servers) with a five-year warranty. The district's practice has been to issue competitive bids, with BCPS-specific installation and maintenance criteria. The presumption was that the computer equipment would have a useful life of five years, and would then be "refreshed" with new equipment. BCPS now has over 100,000 devices on the network. As the computer equipment is "refreshed", the older equipment is repurposed or surplused.

The costs of surplusing computer equipment includes un-installing existing software, removing documents, transporting equipment from schools and district sites, warehousing costs, and ultimately disposal costs. Additionally, repurposed equipment requires increased technical support costs to maintain.

As BCPS continues to purchase computer equipment, the costs of ongoing maintenance and disposal will increase. Many school districts have moved to leasing models of procurement, especially those implementing "one-to-one", to address the following issues:

- Continuously "refreshing" computer equipment
- Avoiding the high costs of surplusing computers
- Bundling technical support and software into the lease
- Leveraging technology dollars to procure larger volumes of computers
- Establishing fixed annualized spending
- Managing assets

In the past, BCPS did not pursue the leasing computer equipment model in which the equipment is removed after the lease period ends. The district's current practice of obtaining computer equipment does not address computer obsolescence or disposal costs. New leasing options have evolved in today's market, which can help reduce the risk of technological obsolescence and provide flexibility in IT spending. It is recommended that reviewing leasing options may be in the best interest of the district especially when identifying total cost of ownership. Leasing equipment may have the financial benefits to enable the district to move forward. Some of the flexibility is identified below:

- Some computer companies have their own financial services for leasing while others use one of the major financial institutions.
- Companies can lease not only its own equipment, but also computer equipment from any other computer company.
- A leasing company may be able to procure equipment utilizing BCPS's competitively bid RFPs.
- A lease can be written in terms of a ***"tax exempt installment sale"*** – this vehicle would allow BCPS to use capital dollars and would avoid the sales tax liability
- Leases can be written to include technical support and software, which some school districts report leads them to lower TCO.
- Leases can be written to include equipment upgrades, or additions, on a co-terminus basis with the original term of the installed asset – this means that the district can move to have all hardware and software at the same level.
- Leases can be written for equipment replacement after 3, 4, or 5 years – that is called a ***Tax-exempt Installment Sale with a Tech Refresh Amendment.***
- Staff was cautioned to carefully examine options for a "Fair Market Value Lease" because sales and property tax exemptions may not pass through to the Lessor, and under the terms of the Lease Agreement the Lessee would be responsible for the reimbursement of such charges.

Therefore, staff feels that a thorough examination of leasing options for computer equipment should be undertaken to determine what procurement model is in the best interest of the district. This study should engage the Comptroller's office and ETS staff, should focus on Total Cost of Ownership (TCO), and should be incorporated into the IT Blueprint with the CELT team.

4.2.2 IT Blueprint Connections

The Instructional Technology Planning Document outlines action steps to implement the district's long-term instructional technology vision, while the IT Blueprint will outline the operational aspects of the district's technology program that will support this instructional vision. The district has engaged outside expertise to construct an IT Blueprint with a stated goal to provide results based on industry best practices. Specifically, the IT Blueprint will address the following critical support aspects for the district's instruction technology vision:

- A comprehensive technical support program – this will address a centralized technical support functions as well as school-based technical support.
- Infrastructure capacity planning – this will address growing demands for network bandwidth, a centralized adaptive server strategy, and a network storage strategy.
- Application and web development life cycle standards – this will implement programming standards for new applicaton development and ensure that new applications will interface seamlessly into the web portal concept.
- Leasing vs Purchasing – Total Cost of Ownership (TCO) analysis will facilitate the decision-making process to select the best procurement model for technology for the district.

The IT Blueprint has a related project entitled "IT Staffing and Organization" to develop and implement a comprehensive staffing and organizational development plan for IT management/support at the school, area, and district level including the help desk function.

4.3 Curriculum Development/Instructional Management (CD/IM)

A component of the vision, the Curriculum Development/Instructional Management tool (CD/IM), is a cornerstone project. This tool will assist the district in providing teachers with digital resources and curriculum content and is necessary to help our teachers, who are the primary deliverers of instruction, and our students, who are the primary beneficiaries, to be immersed in a 21st century, world-class digital learning environment. While various web-based tools have been created to support the building of a CD/IM, the integration of the current work into one comprehensive system needs to be completed.

Since 1996, a CD/IM Toolbox for teachers has been one vision of the use of technology to support instruction. This toolbox would contain high quality curriculum content, digital resources, online professional development, an electronic gradebook, an email system and access to student achievement data. By providing a "one stop" access point for resources and services, teachers can easily interact with the CD/IM from both school and home.

The CD/IM provides a solution to the challenges users face in handling multiple technology-based tools. The CD/IM would be a web portal allowing users to access technology-based tools through a single unique login. A web site called, Webopedia http://www.webopedia.com/ defines a web portal as "a web site or service that offers a broad array of resources and services." Using their unique login, a Broward teacher using the CD/IM will have a uniform entrance to a personal web space containing a standard set of technology-based tools needed by that teacher.

The CD/IM software application is the first major procurement that would be brought forward to the Board for consideration.

4.4 Standardization of Technology-based Curriculum Resources

Standardization of curriculum resources used in Broward classrooms is not a new concept. Through the textbook adoption process, the district has already established a process for selecting the basal textbook. The equipment for the classroom is indicated on the basic equipment list. District standards for the procurement of hardware and software are also used so there is strong precedent for following the standardization process for the selection of technology-based curriculum resources. The benefits of this approach include:

- •Curriculum resources that are consistently found in all schools assist in ensuring that a student (and their achievement data) moves seamlessly from one school to another.
- A greater guarantee that all classrooms will have access to technology-based curriculum tools that support the Sunshine State Standards.
- Training, instructional planning and supporting a resource are simplified when a standard resource is used.
- Potential budgetary savings created by bulk purchasing cannot be underestimated.

Staff proposes that software standardization be addressed through the district's standards process. Software standardization aligns with the IT Blueprint.

4.4.1 Integrated Learning Systems

Integrated Learning Systems (ILS) are proprietary software packages providing curricular content as well as assessment and management options. The ILS provides each student with individualized instruction based on that student's performance on a series of activities and tests linked to standards. Many Broward schools currently use one or more Integrated Learning Systems. Major ILS companies are moving toward Internet-based models that will be independent of computer platform and will allow students to access the ILS content at home as well as at school.

Staff proposes establishing a process to standardizing on an ILS in order to provide benefits to BCPS by standardizing on training and also providing equitable access across the district for students in applicable grade levels.

4.4.2 Productivity Tools

Productivity tools include software programs such as Microsoft Office. Standardization of productivity tools is aligned with the IT Blueprint.

Staff proposes that a process to standardize on productivity tools be implemented through the standards process.

4.4.3 Curriculum Software

Curriculum software should be aligned to the six areas of technology competencies for students, and should enable technology to become an integral component or tool for

learning within the context of academic areas. Standardization of curriculum software is aligned with the IT Blueprint.

Staff proposes that a process to standardize on curriculum software be implemented through the standards process.

4.5 District Staff Development and Training

As schools transition to digital learning environments, staff development is a major cornerstone to providing the necessary knowledge, skills and abilities to teachers, administrators and technical support staff. First and foremost, teachers need to know what is expected of them and then be given the necessary staff development to enable them to be successful in the digital learning environment. The National Education Technology Standards (NETS) for Teachers define the skills teachers need and they have already adopted by both our district and the State of Florida as the benchmarks to follow.

The premise of the district staff development program is that technology enables training to occur "anytime, anyplace" on a 24/7 basis. As results-driven models indicate, staff development that includes follow-up support is the expectation of this district. Therefore, the district strategy for professional development in technology integration relies heavily on using approaches that feature:

- Mentoring for beginning and veteran teachers.
- Peer observation and coaching.
- Teacher Academies, such as the Digital Education Teacher Academy, the New Teacher Academy and district-wide summer academies, that provide ongoing courses, seminars and workshops tied to professional practice.
- Online professional development through online courses, virtual study groups or learning communities.
- Active use of video conferencing and distance learning to connect participants to each other through a virtual learning environment.
- Use of "just in time" video-based tutorials such as those offered through Atomic Learning and the creation of new video-based training to supplement the implementation of major technology projects.
- Incorporating staff development assessments and courses into the CD/IM system so that teachers can access just in time training linked to curriculum content, Sunshine State Standards and the delivery of instruction.

The goal of this strategy is to create a profession of teaching in which teachers have the opportunity to continually learn in the same virtual learning environment that we want to create for our students.

Since so many of our district departments interface with the staff development of teachers, a concerted effort must be made to insure that all district trainers and training programs make the appropriate technology connections to the learning environment.

Specific district staff development initiatives that support the integration of technology into the curriculum, such as the Digital Education Teacher Academy and the Broward Virtual University, will continue to support the staff development efforts of schools as they build digital learning environments.

4.6 Home Computer Connections

The following projects are inter-related:
- Recycling of equipment out of warranty into the homes
- **Thin Client** technology
- Negotiation of reduced rates for Internet Access
- Broadband Wireless Network with ITFS frequencies (BECON)

As technology becomes more important in the lives of our students, the "digital divide" issues become increasingly more critical. Research shows that students who have home computers perform better academically and take higher-level courses. Yet a report from the Corporation for Public Broadcasting ("Connected to the Future") suggests the digital divide has not yet closed, and may potentially widen for some children. The digital divide is an important aspect to our school district because we have recognized the importance of digital media and instructional resources. In fact, a core element of the instructional technology plan focuses on web-based instructional resources for students and their families that will be available on a 24x7 basis. Therefore, the projects in this section are positioned to address the following issues:
- Computers in homes of low-income students/families
- Home Internet access for low-income students/families
- Home access to instructional software 24x7

4.6.1 Recycling Out-of-Warranty Computers into Homes

BCPS currently has over 100,000 networked computers in the system. Many of these computers are over five years old and out-of-warranty. In the re-sale market, computers greater than five years have no re-sale value. Yet they are still usable, although they may not have enough power to run the most current applications.

Currently, BCPS follows the procedure to have schools surplus these computers to get them off their inventory. Then the district sends trucks to pick them up from the school and transport them to a warehouse. From the warehouse they are either auctioned, or the district pays for their disposal.

School districts across the country are experiencing the same dilemma, and many have adopted procedures that allow districts to surplus computers off their inventory and then make them available to parents for home use. Forsythe County, Georgia, has shared their procedures with BCPS staff. They compile a list of eligible families from surveys and teacher recommendations. Then they identify computers for surplus at schools. They take responsibility to "cleanse" the computers of any files, install a clean operating system and eligible licensed software, and also ensure that the computers are in working

condition. Twice a year, parents are selected from the list to attend a training session and to pick up the computer from the school. Forsythe reports that this procedure has been widely supported by the community and has not raised any legal issues.

Given the size of BCPS, procedures would have to be adapted to scale and the following steps would need to be covered:

- Compile and prioritize a list of families needing home computers
- Establish procedures and safeguards for schools to identify computers for "surplus"
- Establish a process to have computers cleansed and repaired
- Determine what software is licensed for home use
- Establish a training program for parents
- Schedule training and pick-up days

It is important to have the computers cleansed and repaired to ensure they are operational. If the computers can be surplused directly from schools, avoiding the transportation and warehousing costs, then it may be cost effective to have an outside agency perform this process. Alternatively, an internal team could be deployed either by additional staff, apprentices, or student interns.

It is suggested that BCPS partner with our parent groups to accomplish this goal. The PTA and DAC have expressed interest to support this goal. Parent groups can be instrumental in identifying needy families and scheduling training and pick-up nights. Furthermore, the district should partner with community groups for further facilitation, especially training and support.

Some may question how this strategy fits into the long-term district plan if the district decides to move to "one-to-one" computing. We need to remember that "one-to-one" would be implemented over a period of several years given the size of BCPS. Also, indications from schools implementing one-to-one suggests that it is most successful when students already had a computer in the home. Overall, this strategy will increase the technology quotient among our low-income families. Getting computers into low-income homes is the first step in bridging the digital divide for the entire family.

In addition to surplus BCPS computers, there is an option to recycle computers from businesses to student homes since some companies may replace their computers on a two or three year basis. It is suggested that BCPS partner with a community organization, such as Volunteer Broward, to facilitate this process.

4.6.2 Thin Client Technology

Thin client technology is a network-centric strategy in which the user's device merely serves as a display for applications running on a centralized server. The computing power is concentrated in the centralized server and not on the user's device. In this model, network connectivity is essential, however, technical support is simplified because only the server needs maintenance. This model has the advantage of easier

management of software and software licensing software is installed on the server instead of the user's computer and is available immediately to all users.

Thin client technology enables the following options in BCPS's instructional technology plan:

- Extends the useful life of computers and allows them to be re-purposed within BCPS.
- Allows students to run BCPS instructional software from their home computer (provided they have Internet access).
- Allows low-income students/families to obtain BCPS surplus computers and run BCPS instructional software (provided they have Internet access).

Thin client technology is an effective strategy when applied to the appropriate instructional environment. It is not appropriate to every situation. However, thin client technology should be factored into the district's IT Blueprint so that it can be implemented and supported where and when appropriate.

One capability of thin client computing supports "24x7" access by providing the ability for students to run BCPS licensed software from their home computers, assuming they have an Internet connection. Since the programs run on the server, even students with older model computers will be able to use instructional resources from home.

4.6.3 Negotiation of reduced rates for Internet Access

A core element of the instructional technology plan is the development of web-based instructional resources for students and their families. Therefore, secure Internet access for students from home will advance the educational mission of BCPS. This is especially important if BCPS begins to implement a "one-to-one" model. Research from other school districts shows that they have negotiated preferred rates with Internet Service Providers (ISP) for their students. The ISP provides filtered Internet access that is compliant with the Children's Internet Protection Act (CIPA) at a reduced rate, which the families pay directly to the ISP.

4.6.4 Broadband Wireless Network with ITFS Frequencies (BECON)

BCPS currently owns Federal Communications Commission (FCC) licensed wireless frequencies, which has traditionally been used for instructional television broadcast by BECON. Today the technology exists to use these wireless frequencies to build a broadband wireless network. BECON and ETS conducted a successful "proof of concept" demonstration of wireless networking. BECON has proposed building out a wireless network throughout BCPS connecting all of the schools to provide additional Intranet capacity for specific applications. If the wireless build-out is approved, then BCPS may have the capability to provide wireless connectivity to low-income homes within a range of a school.

Planning Budget to Implement New Projects

Project	Estimated Cost*	Suggested Funding Source
Digital Learning Environment Study		
Study Groups (teacher stipends for teachers NOT in test schools)	$300,000	PSTF
Test Schools – technology equipment and infrastructure	$5,000,000	ETS Capital
DETA teacher professional development for Test Schools	$175,000	Teacher Technology Staff Development Account
Evaluation for Test Schools	$30,000	Teacher Technology Staff Development Account
Total – Digital Learning Environment Study	**$5,505,000**	
Teacher Portal System (CD/IM) to include appropriate hardware	**$2,000,000**	ETS Capital
Web-based Integrated Learning Systems to include appropriate hardware	**$2,500,000**	ETS Capital
Total	**$10,005,000**	

* Additional resource costs, such as staffing, training and consulting services, must be identified to implement these projects.

Disclaimer: The estimates identified above are based on preliminary findings and will vary based on project scope of work.

Policy Implications

Integration of Technology in Teaching and Learning

Presented by:

School Board of Broward County, Florida

Student Technology Literacy

- ***No Child Left Behind*** Mandate



- "By 2006, all eighth grade students will be technology literate."
- How can districts meet "No Child Left Behind" technology literacy mandates?

Related Policy Issues

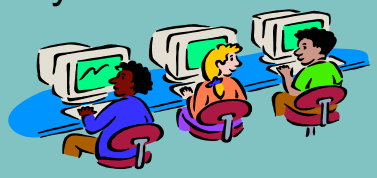
- Each district's student progression plan needs to be augmented to incorporate the NCLB mandates
- What does technology literacy mean?
  - National Education Technology Standards (NETS) for students

Related Policy Issues

- How does the district provide a **curriculum and assessment system** to measure progress based on technology standards?
- How does the district determine **adequate yearly progress**?
- How does the district interface with the school to **insure standards are being met**?

Instructional Practice

- **No Child Left Behind** Mandate
- By 2006, technology will be integrated into teaching and learning
- How can districts ensure that classroom practice meets the needs of students to acquire 21st century skills?



Teacher Technology Literacy

- How can we provide an **accountability system** to insure that teachers use technology provided for instructional and management purposes?
- How can districts ensure that teachers receive **adequate staff development** and capable of integrating technology into classroom practice?

Related Policy Issues

- Teacher evaluation system would need to be updated
  - Collaboration with Teacher Unions
  - Level of service required by the district in terms of staff development and technical support
  - Teacher evaluation procedure would need to be changed to include technology use for instruction

Related Policy Issues

- Incorporating language into instructional policies that insures the use of technology as a method of learning
- Incorporating accountability measures into evaluative systems for teachers and administrators
- Adjusting student progression plan to include NCLB mandates

Policies



Accountability measures

Student Technology Literacy Standards

Teaching and Learning practices

Teacher Staff Development

Student Use of Technology

- How can we provide school-purchased technology directly to students for use at both home and school?
  - Laptops
  - Handheld devices
  - Internet Access to web-based school resources



Related policy issues

- Responsibility for damage, loss of equipment
- Insuring equipment will be used for school related purposes only
- Insuring only school related software will be installed on the equipment
- Insuring virus protection and scanning process upon return to school

Related policy issues

- Principal and administrative guidelines in insuring proper use of technology including:
  - Disciplinary actions for improper use
  - Financial liability (replacement/damage policy)
  - Equity guidelines

Facility (campus) use

- How can we provide our school facilities to the public beyond regular school hours?
- How can we give the public access to the technology in our facilities after school hours?

Related Policy Issues

- Funding strategies
  - Staffing needs
  - Potential revenue source
- Use of facility guidelines
  - Liabilities
  - Definitions of use
  - Ensuring public good purposes
  - Expanded instructional opportunities
  - Scheduling adaptations

Student owned equipment on campus

- Can students use their own equipment at school for instructional purposes?
- Proposed Senate Bill 184
  - "Students will no longer be in violation of the code and conduct if they possess electronic equipment in school or at school events" District to set up guidelines and adopt disciplinary measures if equipment was misused.

Related policy issues

- Functions being added to handheld computers are expanding, enabling potential instructional uses of student owned devices in schools.
  - Can students use their own equipment?
  - How can you distinguish between personal and instructional use?
  - Would not allowing these devices to be used lead to lost opportunities for students?

Sustaining Technology Culture

- How can district's insure that infrastructure upgrades and improvements occur on a regular basis and meet the ongoing needs of the districts?
  - Upgrade Network Infrastructure
  - Replace or upgrade equipment
  - Maintain Software Licenses
  - Add new teaching resources
  - *Re-occurring costs are associating with sustaining a culture of technology*

Sponsorship of employee purchase programs

- Should districts support employee purchase programs to raise the technology competency of its staff?

Related policy issues

- Should employee payroll deductions for personal purchase of technology be instituted?
- Can districts negotiate special terms for employee purchase programs?

Resource Sharing/Tri-County

- What common issues can be addressed through a Tri-County collaboration?
  - *Examples:*
  - Legislative platforms
  - CD/IM resource development
  - Electronic benchmark assessments

Related Policy Issues

- Sharing of:
  - financial resources
  - staff resources
  - technology events
- Equitable contributions
- Alignment of strategic directions
- Evaluation and continuous improvement cycle

"Life is an escalator: You can move forward or backward; you cannot remain still."

P. Russell-McCloud
Motivational Speaker

Broward County Information Technology Plan 2002-2007
Technology Goals and Objectives

MISSION STATEMENT

Implement and support technologies that provide a high quality, safe learning environment allowing all learners to achieve at their highest potential.

VISION STATEMENT

The School Board of Broward County adheres to the belief that technology should play a vital role in meeting the needs of the broad range of abilities, disabilities, cultural backgrounds, ethnic populations, and learning styles represented in district schools. To assure that technology shall play a predominant role, our mission is to provide guidance for appropriate technology utilization and integration into the curriculum, as well as infusion into school/district administration and management through the following goals and objectives.

GOALS AND OBJECTIVES

GOAL 1: All students and educators will have equitable and effective access to technology during and beyond the school day.

Objectives

1.1 Connect all classrooms to the network and provide classroom technology to meet the current district standard.

1.1.1. Identify baseline inventory of currently deployed technology at each site.

1.1.2. Conduct annual needs assessment of site-based technology.

1.1.3. Develop an upgrade implementation plan including budgetary considerations.

1.1.4. Analyze Wide Area Network (WAN) implications and develop appropriate growth strategies.

1.2 Enable easy, seamless, secure connection to the network from all access points.

1.2.1. Establish guidelines for access.

1.2.1.1. Define access points.

1.2.1.2. Define mobility within network.

1.2.1.3. Define mobile non-connected users.

1.2.2. Develop wireless standards.

1.2.3. Enhance remote access solutions.

1.2.4. Enhance security measures and procedures.

1.3 Establish and annually review technology standards.

1.3.1. Investigate new emerging technologies.

1.3.2. Review adaptive and special needs requirements.

1.4 Establish a business continuance plan to insure continued access to educational and administrative resources.

1.4.1. Engage all stakeholders.

1.4.2. List and prioritize mission critical applications and data.

1.4.3. Develop and test disaster recovery plan.

1.4.4. Develop and test contingency plans for applications / hardware / network.

1.4.5. Develop and test backup facilities (redundant).

1.4.6. Review offerings from vendors.

1.5 Create and maintain public/private (community) partnerships to enhance the effective access to technology during and beyond the school day.

1.5.1. Identify national and local partners.

1.5.2. Work with partners to develop strategies and criteria.

1.5.3. Annually reassess the effectiveness of partnership programs.

1.6 Continue to evaluate and improve the infrastructure to enhance the learning environment and accommodate growth (refresh).

1.6.1. Develop technology deployment plan.

1.6.2. Identify and apply for external funding sources.

1.6.3. Identify alternative financing.

1.6.4. Conduct formative evaluation each year to monitor implementation of District's 5-Year Technology Plan.

1.6.5. Continually improve planning process based on evaluation results.

GOAL 2: In order to enhance the impact of technology on student performance, all educators will improve mastery and integration of educational technology.

Objectives

2.1 Develop and deliver standards-based staff development.

2.1.1. Continue to conduct technology needs assessments to identify training requirements.

2.1.2. Provide technology component of educational leadership development for principals and district administrators.

2.1.3. Provide a technology training program and continuing inservice for all staff.

2.1.4. Implement technology integration training as part of mandated staff development.

2.1.5. Provide opportunities for district technology staff, vendors, and teachers to communicate about technology resources and needs.

2.1.6. Incorporate alternative delivery methods for technology staff development.

2.1.6.1. Support the use of on-line / web-based staff development to create "24 / 7" training opportunities

2.1.7. Assist in the implementation of a standards-based set of tools to increase teacher productivity.

2.2 Utilize successful schools and programs as "best practice models."

2.2.1. Designate "models" and reference their roadmap to technology integration.

2.2.2. Create a "no-barriers" school environment wherein the principal facilitates the acquisition and use of technology.

2.2.3. Provide adequate on-site support for technology integration.

2.2.4. Train a cadre of instructional specialists to support school-based technology integration.

2.2.5. Continue to align the School Improvement Plan with technology integration.

2.3 Develop partnerships for staff development opportunities.

2.3.1. Create community resource centers.

2.3.1.1. Use the resources of the Broward County Library System to merge the resources of schools and county libraries.

2.3.2. Enhance parent involvement.

2.3.3. Develop an "e-mentoring" project for Broward schools.

2.4. Ensure the district provides every opportunity for staff to improve their technical proficiency and ability to integrate the technology into the curriculum

2.4.1. Explore and implement system of rewards and incentives for exceptional achievement.

GOAL 3: Provide appropriate and timely technical support to achieve effective integration of educational technology.

Objectives

3.1. Provide full-time Instructional Technology Specialist (ITS) and Technical Support Specialist (TSS) positions at each site (State Goal 4).

3.1.1. Define roles and responsibilities for each position.

3.1.2. Develop formula to determine ratio of support staff – to – technology and end-users at each site.

3.1.3. Allocate funding for positions.

3.1.4. Develop and provide technology certification programs and continuing staff development in support of these positions.

3.1.5. Monitor, assess and modify the positions as necessary.

3.2 Utilize and continue to enhance centralized support system.

3.2.1. Strengthen district's technical support staff.

3.2.2. Establish and implement a knowledge management system.

3.2.3. Continuously improve technical support process throughout the district.

3.2.4. Utilize the Students Technology Leadership Program (STLP) throughout the district in a technical support role.

3.2.5. Monitor, assess, and modify the support system as necessary.

GOAL 4: All students will become proficient users of technology.

Objectives

4.1 Establish student technology competency standards and use to measure student fluency.

4.1.1. Review existing standards for K-12 students.

4.1.2. Research post-secondary and business technology competency requirements.

4.1.3. Adopt state and national student technology competency standards.

4.1.4. Perform periodic reviews of competency standards and modify as necessary.

4.1.5. Identify and create viable assessment and evaluation tools for use.

4.1.6. Provide assessment and evaluation tools, with training, for implementation and use by schools.

4.2 Provide students with technology literacy skills.

4.2.1. Enrich learning resource materials and make them readily available.

4.2.1.1. Computer Based Training (CBTs), district or site-based

4.2.1.2. Videos

4.2.1.3. CDs and DVDs

4.2.1.4. Internet based

4.2.1.5. Printed materials

4.2.1.6. Face to face training

4.2.1.7. BECON (Broward Education COmmunications Network)

4.2.2. Ensure the inclusion of technology skill sets in curriculum framework at appropriate grade levels.

4.2.3. Provide instruction in problem solving, decision making and research skills using technology such as use of Boolean search strategies, search engines, O/S search features, sorting and narrowing skills.

4.2.3.1. Ensure the inclusion of skill sets for life-long learning.

4.2.4. Provide students with instruction in the use of communication tools such as email, newsgroups, chat rooms and threaded discussions.

4.2.4.1. Provide access and training for instructional staff in use of these tools as teaching strategies for the delivery of curriculum and assessment of student achievement.

4.2.5. Provide students with instruction in the use of productivity/ creativity tools such as word processing, spreadsheet, database, graphics, and browsers.

4.2.5.1. Provide training for instructional staff in the use of these tools as teaching strategies for the delivery of curriculum and assessment of student achievement.

4.2.5.2. Provide training for school based technical staff in the use of these tools to assure that they can assist instructional staff when they use these tools in the classroom.

4.3. Reduce the ratio of end users to computers and ensure currency of technologies.

4.3.1. Continue to procure new hardware and software.

4.3.2. Ensure the networks provide adequate connectivity.

4.3.3. Explore new technologies that will extend the effective life of existing hardware and leverage past investments.

Mission Statement

We, the School Board of Broward County, Florida,
are committed to ensure that all students receive a quality education,
within a safe and secure learning environment

All students will achieve at their highest potential

OBJECTIVE 1
•By June 2005, all students will read by the 4th Grade and 80% of all students tested will score Level 2 and above on FCAT Reading

OBJECTIVE 2
•By August 2004, all classes, K-1, will have an average class size of 18 students; all classes 2-3 will have an average class size of 20 students to enhance the teaching and learning environment

OBJECTIVE 3
•By June 2004, all schools will receive a grade of C or better on the Florida School Performance Grade Category designations

All schools will have equitable resources

OBJECTIVE 4
•By August 2004, all students will attend a school that is safe, secure, and conducive to student health and well-being

OBJECTIVE 5
•By August 2004, reorganize and align the essential student support systems, school operations, and technology to maximize student achievement

OBJECTIVE 6
•By August 2003, every student will have a competent, qualified teacher

All operations of the school system will align with student achievement and needs

OBJECTIVE 7
•By August 2004, reorganize and align all resources from all administrative divisions, including personnel, budget, facilities, etc, to support student achievement
All stakeholders will work together to build a better school system

All stakeholders will work together to build a better school system

OBJECTIVE 8
•By Spring 2005, customer satisfaction with Broward County Public Schools will have increased to an average of 90% as measured by surveys of students, parents, teachers and community groups

OBJECTIVE 9
•By June 2001, there will be a fully developed and implemented communication infrastructure to enhance effective and positive internal and external communication

OBJECTIVE 10
•By September 2001, the district will fully implement a public engagement model to establish a constructive and collaborative relationship with parents, businesses, universities, and governmental, community-based and cultural organizations

The School Board of Broward County, Florida

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We Value:
• Responsibility
• Honesty
• Citizenship
• Self Control
• Kindness
• Tolerance
• Respect
•Cooperation

<<BACK

Appendix E: Educational Computing Solutions for Students Background Research

Identifying the most appropriate device to meet the diverse needs of our students is a task that the district will continuously assess moving forward. To encourage teachers to move from traditional teaching and learning to a constructivist environment will require the appropriate devices to assist in this change. In an effort to afford all students the ability to utilize digital devices on a daily basis, the district can opt to provide laptop computer carts to schools instead of classroom workstations. This will assist teachers in adapting to a one-to- one teaching model with a suitable learning curve. Students will have the ability to use the computers during the school day and workstations at home or in community centers. Re-purposing older workstations to the home will allow for this initiative to move forward. This type of change will actively involve parents and families in student's progress and engage the learning community as a whole.

Initial research findings from other school districts that have instituted one-to-one laptop initiatives shows significant gains in student achievement, particularly in writing, student collaboration and changing teaching practices. Appendix B indicates some of the major school districts that have undertaken one-to-one initiatives, their implementation strategies, and evaluative results if any.

In summation, these initiatives and the initial research and evaluation is showing the following trends:

- Portability and convenience of laptop computers is leading to improved student learning.
- Digital content and resources are provided to meet different learning goals and styles.
- Teachers are changing their teaching style from an emphasis on lecturing to using a more constructivist pedagogical approach to learning. Constructivist teaching is based on the premise that learning is more meaningful when students are actively involved in the learning process.
- Teachers are reporting greater confidence in the use of technology and feel more empowered in their classrooms.
- Access to technology improves students' writing and encourages collaboration among students.
- Students using laptops or other digital devices are more involved in their learning, explore topics on their own, revise their work more often, and work on longer, more intricate projects.
- Test score results are improving in schools with one to one initiatives.

Dr. Mark Edwards (2004), Superintendent of Henrico County Public Schools, is leading the effort to expand the power of technology to improve student learning. Henrico deployed 25,000 wireless-capable laptops to students in both high and middle schools and is in the third year of its "Teaching and Learning Initiative." Initial findings show significant gains in student achievement (Table 1.0) and a strengthened link between

family and school. School accreditation has increased to 100 percent, SAT scores are higher, and the dropout rate is the lowest ever.

Standards of Learning	2001	2002	2003
Social Studies	74	86	91
Mathematics	84	84	90
Science	85	86	93
English	90	90	95.5
Fully Accredited Regular Schools	78%	92%	100%

Table 1.0 - Increases in standardized achievement test scores and school accreditation. Henrico Co.

These gains have not been without issues. A major issue has centered on the sustainability of the funding for the programs, especially after the initial year of implementation. For example, Michigan began a state initiative to put laptop computers in the hands of all sixth grade students. Michigan expected school districts to line up to participate in the program. However, they found that many school districts were concerned that the state funding would not be available in future years and that any program started would not be sustainable after a few years.

The state of Maine's laptop program, the nation's first statewide laptop initiative, is looking financially vulnerable and a growing number of local laptop programs are running into problems. These issues highlight the reality that these initiatives are often easier to start than to sustain. Educators say the programs are also prime targets for cuts during budget crises.

Henrico County commits between four to five percent of its operating budget to technology. Most educators believe that a sustainable level of support must be undertaken by school districts if they are to be successful in these initiatives.

All the school districts agree that before embarking on a one-to-one initiative, the following advice is given:

- Develop a plan that not only launches the one-to-one initiative (digital device) but sustains it over the long term.
- Start small, go slowly and learn from others who have experienced this implementation.
- Involve your community in the program and solicit their support. Communicate with parents and the community at large about the progress of the initiative.
- Consider wireless mobile labs at each site to implement a phased approach to the one-to-one initiative.
- Provide ongoing professional development.

- Provide adequate levels of technical support and assistance with curriculum integration.

CHALLENGES

- Creating a community of technology savvy teachers and learners.
- Funding the one to one initiative.
- Identifying the appropriate devices for students.
- Improving economic development and opportunity for students and families.
- Providing Internet access in the homes of students.
- Providing insurance for laptops or digital device and looking at an affordable fee structure for this aspect.
- Mobility of students – determining what happens when a student moves from one school to another.

A potential opportunity for funding a one-to-one initiative study may come from new legislation from the Florida legislature. Senate Bill SBO116C2, in consideration now, calls for creating the Florida Teaching and Learning Technology Initiative. The purpose of this initiative is "to enhance public education through the use of technology in the classroom, including portable, wireless technology products fully configured for digital media; to motivate and assist students to achieve at high levels with the recognition that students have different learning styles; to prepare students for the 21st century workforce; and to increase parental involvement in student academic achievement." If passed, the Department of Education will administer 10 grants to school districts for the purchase of technology and services from the state partner. Grants would be three-year grants, subject to appropriation and would be initially implemented in the 2004-005 school year. Staff will closely monitor this Senate Bill.

Trotter, A. (2003). Budget crises may undercut laptop efforts. Education Week.

Edwards, M. (2004). Fulfilling the promise of Ed tech: Laptops spur learning.

Edutopia: Success Stories for Learning in the Digital Age. P.23-30.

Public Policy Institute of New York State, Inc. (2003). A laptop for every student? www.ppinys.org.

Appendix F: Single Site Composite Cost Analysis
Digital Learning Environment Study
(Based on quantities associated with a model deployment at a typical High School)

	Cost per item	Quantity	Extended Cost
Infrastructure Wireless Upgrade	$118,000	1	$118,000
Enterprise Wireless Network Extension: Portables	$3,193	19	$60,667
Classroom Presentation Upgrade	$950	90	$85,500
Teacher Laptops*	$1,000	67	$67,000
Student Laptops	$1,000	2607	$2,607,000
Staff Development (DETA)	$700	140	$98,000
Evaluation	$15,000	1	$15,000
TOTAL PROJECTED MODEL COST			**$3,051,167**

*Teacher laptop count calculated with assumption that 50% of all teachers already have Laptops meeting minimum District Standard.

Single Site Composite Cost Analysis
Digital Learning Environment Study
Based on quantities with a model deployment at a High School that has a wireless overlay and laptops instead of desktops

	Cost per item	Quantity	Extended Cost
Infrastructure Wireless Upgrade	$0	1	$0
Enterprise Wireless Network Extension: Portables		0	$0
Classroom Presentation Upgrade	$950	60	$57,000
Teacher Laptops*	$1,000	20	$20,000
Student Laptops	$1,000	852	$852,000
Staff Development (DETA)	$700	80	$56,000
Evaluation	$15,000	1	$15,000
TOTAL PROJECTED MODEL COST			**$1,000,000**

*Teacher laptop count calculated with assumption that there will be 20 new teachers at Monarch in the 04-05 school year.

Note: Technical support will be addressed in the CELT IT Blueprint.

Broward Digital "Learning Environment" for Teachers and Students
Empowering the teacher and student to excel in a digital world

How can the Broward County Public Schools best prepare its students to be successful in the rapidly changing environment of the 21st century? This is a question of paramount importance to the leadership, teachers, parents and community. The No Child Left Behind Act (NCLB) of 2001 is providing some direction by mandating technology literacy for students by 8th grade and by including technology literacy under its definition of a "qualified teacher." Most importantly, NCLB recognizes the importance of technology in the global world that surrounds our students and challenges educational leaders to ensure that technology literacy become a "basic skill" needed in much the same way as reading and math for success in the students life.

What kind of world is facing our students? Students will spend their adult lives in a multitasking, technology-driven, multi-cultural and energetic world and they must be equipped to handle it. For many students, everyday life is already technology-driven. Students connect with friends via email, instant messaging and chat rooms, search the web to explore their interests, express themselves with multimedia, learn with software, play video games in virtual realities, manipulate digital photos and take pictures with cell phones. Yet, they come to school and learn with traditional methods using paper and pen, they read from textbooks, and take one-dimensional assessments to express their knowledge. Clearly, there is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills needed in today's communities and workplaces. Prensky (2001) frames the issue in this way, "Our students have changed radically. Today's students are no longer the people our educational system was designed to teach." Prensky goes on to give some information on today's students that can clearly guide Broward County stakeholders as they plan for an educational system that meets the future needs of students. These characteristics are:

• Students (K through 20) represent the first generations to grow up with computers, videogames, cell phones, the Internet and other tools of the digital age.
• Today's average collage graduates have spent less than 5,000 hours of their lives reading, but over 10,000 hours playing video games.
• Because of this ubiquitous, technological environment and the way students interact with it, *students think and process information fundamentally differently from their predecessors.*

So, what are these "new" students of today being called? Some refer to them as the NET Generation (Tapscott, 1999) while Prensky (2003) has coined the term "Digital Natives" to indicate that our students are "native speakers" of the digital language of computers, video games and the Internet. If the students are the "Digital Natives" then what about the adults that are guiding and leading them into the future? They, according to Prensky, are the "Digital Immigrants" who, while adapting to the new technological environment, always retain their connection to the past. Here is an example of how a "Digital Native" and a "Digital Immigrant" might handle similar tasks.

Task	Digital Immigrant	Digital Native
Using email	Printing out your email or having your secretary print it out for you	Read, respond on the spot and delete
Sharing a web site	Bringing people into your office to see an interesting web site	Emailing the URL to the people
Receiving information	Like to receive information slowly and absorb it over time	Used to receiving information rapidly and making quick decisions
Learning strategy	Linear, step by step approach, one thing at a time, individually and above all seriously	Parallel process and multi-task, prefer random access, instant gratification, expect frequent rewards, prefer games to "serious" work and function best when "networked." Learning can be "fun."

What is the result in our classrooms? "Our Digital Immigrant instructors, who speak an outdated language (pre-digital age), are struggling to teach a population that speaks an entirely new language" (Prensky, 2003). Digital Immigrants assume that learners are the same as they have always been and that the same methods that worked for the teachers when they were students will work for their students now. *But that assumption is no longer valid. Today's learners are different.*

So as a result of this situation, what should educators do? There are really only two answers - either the Digital Native students will learn the old ways or the Digital Immigrant educators will learn the new. Prensky states that it is unlikely that the Digital Natives will go backwards and states that it may be impossible anyway because their brains may already be different. Also the research on cultural migration indicates that kids born into any new culture learn the new language easily and forcefully resist using the old.

So, unless we want to forget about educating Digital Natives until they grow up and educate themselves, we must confront this issue. And in doing so need to reconsider both our methodology and our content.

First, let's look at our predominant, current methodology. If one goes into a typical classroom of today, they may see the Teacher as the lecturer imparting information and knowledge to a group of students who are passively absorbing the information. There may be some interaction but it would be under a controlled environment, within a specific schedule and the content would be delivered through a linear, step by step process. Technology may be used as a supplement to instruction and in a few classrooms may be used creatively.

Contrast this with an environment in which various activities may be occurring simultaneously at various learning centers, where students are making effective use of technology for communication, information retrieval, and project based learning. In this environment the teacher is the guider of the learning process and seamlessly moving students through the learning in an interactive and engaging manner.

Content also takes another dimension. Relationships among content, called interdisciplinary learning, are also an integral part of the way students learn and help them make "real world" connections to the information they are receiving.

The Partnership for 21st century skills coalition of business and education leaders (2003) indicates that six key elements must be present for assisting students in gaining the knowledge and skills needed for future success. These elements, they state, need to be incorporated in every curricular program and teaching and learning process in our schools and can be summarized as:

- Building knowledge on core subjects. No Child Left Behind (NCLB) identifies these as English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, art, history and geography focused beyond basic competency to the understanding of academic content at high levels.

- Focus on life long learning skills. These have been defined as information and communication skills, thinking and problem-solving skills and interpersonal and self-directional skills.

- Use of digital tools to develop learning skills. Students need to be proficient in using digital tools to access, manage, and evaluate information, construct new knowledge and communicate to others to participate in society.

- Teach and learn in a 21st century context. Students need to learn academic content through real-world examples and experiences both inside and outside of school. With the power of the Internet, learning can also be expanded beyond the classroom walls, allowing learning to take place "anytime, anywhere" access to the Internet can be obtained.

- Teach and learn 21st century content. Educators and business leaders have defined these areas as global awareness, financial literacy and civic literacy. Much of this content is not captured in existing curricula or taught in depth in schools today.

- Using assessments that measure 21st century skills. Standardized tests alone can measure only a few of the skills and knowledge needed in today's world. Assessments that offer alternative means for students to express their knowledge are needed along with information technologies that record and analyze data on student performance.

A guide to 21st century skills from the partnership for 21st century skills is in Appendix A.

According to Istance (2002), to live in the 21st century, students also need to be given the tools to cope with a complex, rapidly changing world in which they live, with personal development and global citizenship being equally important to cognitive knowledge.

As Broward develops its vision, it can benefit from some of the future schooling scenarios that are being proposed by various world organizations. Istance (2002) delineates three visions that may be emerging.

1. *Attempting to maintain the status quo*. With this scenario, the basic features of the existing systems are maintained well into the future whether from public choice or from the inability to implement fundamental change.
2. *Reschooling*. This scenario sees major investments in schools with high priority placed on both quality and equity. *Schools as Core Social Centers* leads to extensive shared responsibilities between schools and community bodies, sources of expertise and institution of further and continuing education. *Schools as Focused Learning Organizations* are centered around a strong knowledge rather than social agenda in a culture of high quality, experimentation, diversity and innovation. New forms of evaluation and competence assessment flourish.
3. *De-schooling*. Rather than high status and generous resourcing for schools, the dissatisfaction of a range of key players leads to the dismantling of school systems to a greater or lesser degree. This may translate to *Learning Networks and the Network Society* in which various cultural, religious and community voices take on the functions of schools. Small group, home schooling and individualized education are some examples. Another scenario may be described as *Extending the Market Model* Many new providers are stimulated to come into the learning market, encouraged by reforms of funding structures, incentives and regulation.

Broward County Public Schools vision is to close the gap between how students live and how they learn in school. This is also essential if we are to provide equal opportunities for our students as it becomes apparent that students without access to technology at either school or at home will be at a disadvantage in 21st century society. Therefore, providing students with routine and regular access to technology both from school and home will be an integral part of the educational plan.

This vision includes a restructured learning environment that takes the best of the future scenarios, integrates the research on the growth and development of today's students and incorporates 21st century skills.

Broward's digital learning environment aligns with Istances (2002) Re-schooling concept. Broward's schools would be transformed into Community Learning Centers with 24/7 learning opportunities. Some schools would be open in the evening to the community with flexible scheduling of classes in high school allowing students to continue to learn in the evening when needed. But most importantly what is occurring in the classroom itself has been transformed. The traditional classroom setting of crowded rows of desks with the teacher at the front has been replaced with a learning environment

designed to provide an interactive venue for students. There is an area for small group presentations with a permanently set up video projector device and a laptop. In this area, students can use technology to present their understanding of subject knowledge. In other areas of the room are learning stations with the technology tools needed to teach curriculum content in reading, mathematics, social studies and science. There is another area for group projects or small group discussions. Project based learning and interdisciplinary strategies provide students with a well-rounded understanding of curricular content and an atmosphere of discovery, deep thought and reflection, participation and interaction are encouraged. The teacher is facilitating the learning and has a firm understanding of each students learning needs because she has immediate access to data to assist in planning and delivering learning programs. Each student has a learning device (laptop or new device) that is used for learning, productivity and communication. The student and teacher are connected to a wealth of information and curricular content through this tool and communicate through it to each other and anyone from a large network of learning specialists. Parents have immediate access to information on the progress of their children and can readily communicate to teachers and school staffs through the Internet,

Students in all grades can take classes via an online environment and combination online and classroom courses are common. Student to student interaction is also an essential component of learning. Students are expected to join learning networks and work together on group projects and activities. The critical 21st century skills are central to the learning and students are taught to be team players, take on leadership roles, and be critical thinkers and active citizens in the community. These skills are also advocated by business organizations (SCANS report) and reflect the skills needed in a global working environment.

Administrators and support staff maintain the learning environment and provide essential organizational and management functions. Technology is seamlessly integrated into all instructional and management operations because a well-trained and efficient support level of staff is provided. **School leadership learned from previous experiences that having a highly efficient and effective technology support system was paramount to the successful creation of this new digital learning environment.**

Most importantly, students are succeeding at high achievement levels and are part of an engaged, active learning community that believes that every student *will* learn.

To incorporate these elements into the everyday delivery of curriculum will take the effort of a community that shares the vision of changing teaching and learning to accommodate to a changing 21st century world and Broward County is positioned to take the national leadership in this area.

Baseline Data: Florida STAR (School Technology and Readiness) Chart

School districts have NCLB goals of technology literacy for all students and technology integration in the curriculum. NCLB requires state educational agencies to report adequate yearly progress towards the attainment of these educational technology goals. In order to provide measurements of progress, the Office of Educational Technology/Florida Department of Education solicited school district input to develop two instruments in 2002-03: (1) a common definition of technology literacy and (2) a School Technology and Readiness (STAR) rubric of technology benchmarks related to a variety of educational issues.

The common definition of technology literacy is derived from the research on 21st century skills conducted by the Partnership for 21st Century Skills. **Technology literacy** is the ability to responsibly use appropriate technology to communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century.

The Florida STAR Chart provides a framework to measure how well schools are prepared to equip students with the knowledge and skills they need to meet the challenges of expanding technology. Every Broward School has a baseline STAR chart, which was generated by completing the 2002-03 STAR surveys. The STAR survey is a self-report, as opposed to self-assess, instrument. The STAR Survey has five strands:

- Technology Administration and Support
- Technology Capacity
- Educator Competency and Professional Development
- Learners and Learning
- Accountability

Each strand has multiple benchmarks (categories/columns). Each benchmark has indicators at four levels of achievement: Entry, Intermediate, Advanced, and Target. The baseline STAR average of Broward Schools (completed in Fall, 2003) showed that the Broward average matched the state average in all but two benchmarks (instructional technology staffing and teacher computer access). The Broward average lagged the state average in instructional technology staffing, but exceeded in teacher computer access.

The Florida DOE engaged outside research to validate the results of the STAR survey, and user input was solicited to make the survey user-friendlier. The 2003-04 STAR survey has been modified and improved, and the STAR survey is open for schools to complete from November 3-26, 2003. The STAR survey has also added questions for centralized district staff. STAR results and comparisons will be available Spring 2004. A copy of the STAR Chart is attached in Appendix B and is now used as part of the school improvement planning process by every Broward County school.

Progress to Date:

"The Growth of Instructional Technology in the Broward County Public School System 1980-2003" (Appendix C) identifies the key events and their impact on the district as technology has moved forward creating a community of lifelong learners. Over the past two years, several programs have contributed to the creation of a digital learning environment for teachers and students. The programs below are examples of these collaborative, inter-departmental efforts:

Learners and Learning

- Atomic Learning provides "just in time" training in basic technology literacy skills. Teachers, students, parents and staff can use this system and it assists students with meeting NETS standards for students.
- Broward Virtual Education (BVEd), Broward's online high school, delivers online courses "anytime, anywhere" to students and is a major contributor to virtual education.

Educator Competency and Professional Development

- The Digital Education Teacher Academy (DETA) is a district-wide professional development program for "retrofitting" teachers to integrate technology into the curriculum in partnership with Florida Atlantic University.
- The New Teacher Academy assists teachers with understanding the technology tools and curriculum available at each school.
- SBBC Virtual University provides online staff development to teachers in the areas of classroom strategies and course content. These inservice courses are designed to provide educators with the opportunity to participate in staff development training at their convenience.

Accountability

- Virtual Counselor provides student achievement data to administrators, teachers, students, and parents via the Internet to assist with instructional planning and communication.
- The district has developed and is administering a benchmark assessment test to all students in grades 3-10 as a tool for tracking their progress between FCAT assessments. The results are available through Virtual Counselor. Future plans are to deliver the benchmark assessment test via the online environment.

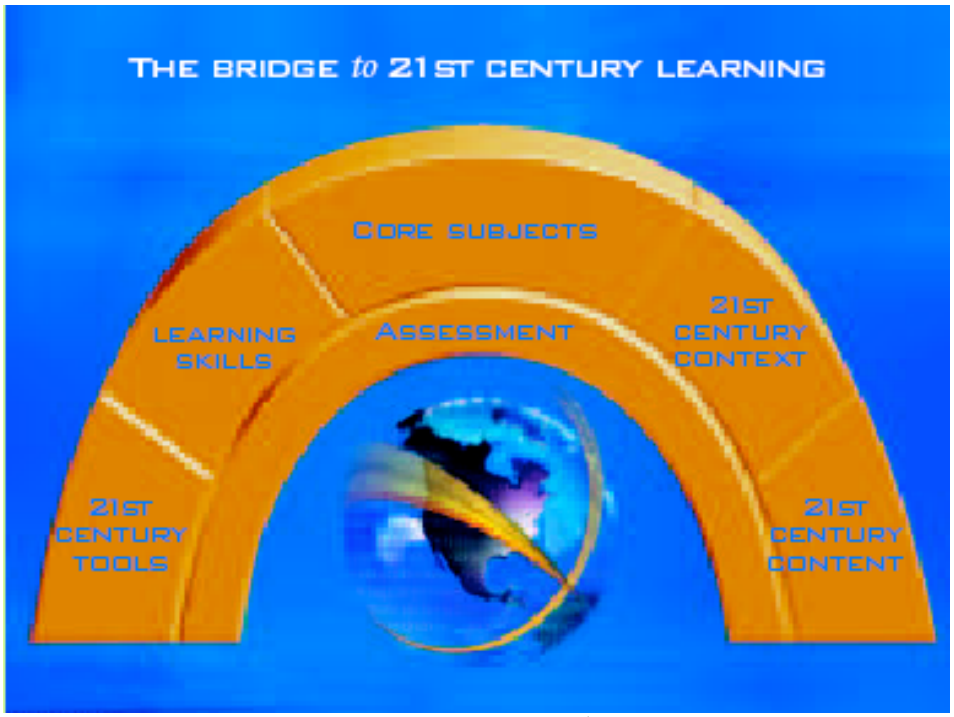
Technology Administration and Support

- Technology integration courses for leadership are now being offered through the HRD's Leadership Development for Lead Teachers, Assistant Principals, and Intern Principals.
- School Improvement Planning is done annually by schools and integrates technology planning into the school improvement process.
- Centralized budget for hardware and software.

- District licensing for Filemaker Pro, Macintosh Operating Systems, Foolproof, Deep Freeze, Virus software, Appleworks.

Technology Capacity

- Through the refresh process, laptop computers are becoming available to all teachers.
- Currently, students use computer labs, wireless carts, media center resources and classroom computers to access instructional technology resources
- The school/district/admin level local area networks (LAN) are well designed and constructed. All district LANS administered by ETS are consistent in design, documentation, installation and maintenance. BCPS is considered "best in class" for LANS in K-12 public schools (CELT, 2003).
- A resource bank of online lesson plans, curriculum maps, internet based curriculum and student achievement data is now available to the classroom teacher to assist with technology integration



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How does BCPS move forward in its efforts to implement this vision?

The first major step is for leadership to communicate the vision to all its stakeholders. Parents, business partners, teachers, administrators and students must understand the vision, understand the context and reasons for the change, and be able to contribute to the goals and objectives leading to the creation of the vision. To do this, effort must be made to engage all stakeholders in conversation centered around implementing the vision. The Partnership for 21st century skills (2003) lists a nine-step strategy for building a shared vision. These steps are:

- Embrace a powerful vision of public education that includes 21st century skills.
- Align leadership, management and resources with educational goals.
- Use the rubric included in Appendix A (MILE Guide from Learning in the 21st Century Skills) as a tool to assess where schools are now.
- Develop priorities for 21st century skills
- Develop a professional development plan for 21st century skills.
- Make sure students have equitable access to a 21st century education.
- Begin developing assessments to measure student progress in 21st century skills.
- Collaborate with outside partners.
- Plan collectively and strategically for the future.

21st century vision with 21st century tools (CD/IM)

Next, the current five year educational technology plan must be updated and enhanced to implement the vision over the next five years. This new "educational technology" plan would provide a blueprint for moving the district forward towards its vision of a restructured educational system that accommodates to the new challenges and opportunities brought forward by a global, technology driven world.

Updates to the following components must be part of the plan.

- A process to accelerate the professional development plan for "retrofitting" our teachers to be able to integrate technology into the curriculum on a regular and daily basis.
- A plan to accelerate the development and implementation of the Curriculum Development/Instructional Management tool for teachers including hardware, software, curriculum, and Internet access aspects that enable the effective use of the tool.
- A plan to accelerate the development and implementation of a student portal of digital resources and services (hardware, software, curriculum, and Internet access). Included in this plan would be examining the basic equipment lists, the availability of electronic textbooks, a strategy for providing student laptops or appliances to enable 24/7 learning and a strategy to insure that every student meets NCLB compliance guidelines in the area of meeting technology standards through curriculum delivery.
- A plan to provide leadership with the skills to implement the vision on a local level and monitor and guide the progress.

- A plan to provide parents with timely information about how their children are progressing and to include them in the academic life of their children.
- A plan to involve the community in the implementation of the vision through the sharing of the responsibility and reaping the benefits of a successful educational process that prepares "all" students to meet the challenges of a 21st century world.
- A plan to provide the budget and funds to implement the vision.
- A technical plan to provide the underlying infrastructure (network, hardware and software) to support the educational plan.

Online Teacher Resources
The Curriculum Development/Instructional Management (CD/IM) Toolbox

While the overall educational technology plan is being developed, a component of the vision, the Curriculum Development/Instructional Management tool, must move forward. This tool will assist the district in providing teachers with digital resources and curriculum content and is necessary to help our teachers, who are the primary deliverers of instruction, and our students, who are the primary beneficiaries, to be immersed in a 21st century, world-class digital learning environment. As the following report will show, various web based tools are available that support the CD/IM project. However, the integration of the current work into one comprehensive system needs to be completed.

Beyond CD/IM: Expanded Vision and Next Steps
Since 1996, a Curriculum Development/Instructional Management (CD/IM) Toolbox for teachers has been one vision of the use of technology to support instruction. This toolbox would contain high quality curriculum content, digital resources, online professional development, an electronic gradebook, an email system and access to student achievement data. By providing a "one stop" access point for resources and services, teachers can easily interact with the CD/IM from both school and home.

Appendix A is a visual representation of the proposed CD/IM system. The resources indicated in green are web applications that have already been created and the resources in yellow are under development. Note that the pieces have been created independently of the other components and there is no system as yet that pulls all the pieces together and connects them to one central system. The center box on the vision that reads, *E-Map, the Curriculum Portal* is a visual representation of the central system that is needed.

How Does the CELT Assessment and the Technology Blueprint Interact with the SBBC "Digital Natives" Learning Vision?

The Benton Foundation published a 2003 research report entitled "The Sustainability Challenge: Taking EdTech to the Next Level". This research drew attention to the need for educational institutions to organize effectively and plan strategically so that the initial impact of instructional technology can be sustained over time. That is to say, forward-thinking school districts realize that they need "21st century management" to sustain their technology initiatives for teaching and learning. (Dickard 2003). "The Sustainability Challenge" identifies three indicators for successful sustainability as:

- Developing a Culture of Innovation
- Institutionalization of Educational Technology
- Gathering and communicating evidence of effective use of Technology

The CELT assessment outlines the sustainability challenge for Broward County Public Schools (BCPS). BCPS has invested in educational technology to impact student achievement. The findings of the CELT assessment show that BCPS has accomplished significant initiatives with technology, and the CELT recommendations focus on strategic

decisions that will allow BCPS to deliver technology services more efficiently in the future. The CELT assessment indicates that BCPS is at a pivotal point in its ascension to exemplar status. The CELT recommendations align with the "Sterling" principles of continuous improvement and indicate that BCPS can implement "21st century management" by focusing on process improvement. Process improvement means that, as an organization, BCPS documents, simplifies, and automates how we work as an organization

In this sense, CELT is the architect of the technology blueprint that enables and sustains the SBBC vision of the "digital natives" learning environment.

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Initial Preparation Description

Survival Training Components

Broward County requires all participants of the Alternative Certification for Educators' (ACE) Program to attend days one and two of the New Teacher Academy (NTA). Day one of the Academy covers Classroom Management, and day two covers Instructional Delivery.

The Classroom Management component focuses on establishing the rules and procedures necessary for a classroom to run smoothly. Participants review management styles and engage in assessments that assist them in determining their personal styles. Participants also learn the technique for developing classroom rules, procedures and routines. In addition, participants learn the techniques involved with implementation and enforcement of classroom rules and procedures. The work of Harry Wong in the *First Days of School* and *Effective Teacher* are used in the delivery of this workshop.

The Instructional Delivery component exposes new educators to various resources and information that will assist them in planning lessons and curriculum. Information on the Sunshine State Standards, Curriculum Maps/Unit Plans, FCAT, Working on the Work, Questioning, Graphic Organizers, Multiple Intelligences, Bloom's Taxonomy, Rubrics, Lesson Mastery, Assessment, and Cooperative Learning are covered at this session. This component further builds on the work of Harry Wong that was introduced in Classroom Management.

Classroom Management and Instructional Delivery are mandatory and a pre-requisite for participation in the ACE program. New educators are also encouraged to participate in the online course Foundations of Teaching that is designed to assist teachers with content, strategies and discussions on three key areas of teaching: Classroom Management, Instructional Delivery and Behavior Management. An online course in Behavior Management is also recommended to provide strategies for dealing with difficult students.

Length and Frequency of Training

The NTA has a Saturday delivery schedule and days one through five are offered throughout the school year. A summer schedule is also developed to accommodate teachers who are hired during the summer months. Participants who cannot attend on Saturdays are offered the comparable workshop contents on compact disk for completion. The compact disk is modular-based containing the following topics: Planning, Student Conduct, Instruction, Subject Matter, Communication and Testing.

Support Team Description

Composition of Team

Participants in the ACE program are assigned a support team comprising of the ACE participant, a teacher coach (retired teacher or administrator), on-line assessor (National Board Certified Teacher), an instructional coach (school based accomplished teacher), and a site administrator. In addition, auxiliary support is available through the New Educator Support System (NESS) school liaison, Human Resource Development NESS support team members. These individuals are all assigned to schools to ensure the successful transition to teaching of all ACE participants.

Selection Criteria for High Quality Peer Mentors

The composition of the support team includes two peer mentors. The teacher coach and instructional coach both have roles and responsibilities that mirror a peer mentor. Teacher coaches are selected through a competitive process and are interviewed to determine their skill levels in the 12 Florida Educator Accomplished Practices, coaching and mentoring, and technology skills. A building level administrator at the mentoring site recommends instructional coaches. (All ACE program coaches must complete the state mandated Clinical Educator training.)

Available Training to Support Instruction and Assessment

Clinical Educator training is offered on an ongoing basis throughout the school year. Teacher coaches are also required to attend a monthly three-hour workshop where they are introduced to new coaching techniques, share in best practices, and learn from each other's collaborative experiences. To support teaching and learning through the on-line Desire2Learn software, monthly technology workshops are also offered to ACE program coaches. Mini workshops are developed, planned and delivered based on the teacher coach group members' unique needs. There are workshops offered that specifically focus on the assessment tasks associated with the Desire2Learn system.

Frequency of Support Team Meetings

All support teams are required to meet monthly to support and review the status of ACE program participants. Meetings are also scheduled on an "as needed" basis as teams may meet more frequently than once per month. NESS support team members also schedule monthly cohort meetings that allow program participants the opportunity to network and collaborate on topics concerning new teacher challenges and ACE program requirements. The cohort meetings also support program participants through shared understanding of the assessment tasks and the requirements necessary for submission. In addition NESS support team members who act as coordinators of these cohort workshops, teacher coaches and online assessors also participate to facilitate the session and coach their assigned program participants. Teacher coaches will host monthly (after school) workshops to work collaboratively with program participants in their respective zones.

Frequency of Observations in Classroom

Per Collective Bargaining Agreement between the Broward Teachers' Union and Broward County Public Schools, formal observations are primarily initiated by the principal or his/her designee twice per year. Employees may also request a formal observation. Observations are not less than 30 minutes in duration and are conducted by the principal, director or his/her designee. The 30-minute time period may be shortened by mutual agreement between the principal and the affected employee. All observations of employees for the purpose of assessment are conducted openly with the full knowledge of the employee. In addition to formal observations, informal observations will be conducted as frequently as needed to enrich the development of program participants. A conference is conducted after each formal and informal observation to communicate areas of growth and further development. The Florida Performance Measurement System (FPMS) formatives or other educationally sound observation instrument may be used for formal and/or informal observations.

Opportunities for Supporting Roles of Collaborative Partners

Description

ACE program participants have the opportunity to participate in two monthly cohort meetings, a one-on-one meeting with their teacher coach and additional meetings are scheduled upon request. An ACE participant may request a meeting with his/her teacher coach, instructional coach, NESS support team members or with the district's ACE program coordinators. All ACE program stakeholders work collaboratively to support the successful completion of program requirements.

Assessment System

Pre-Assessment (initial evaluation) of Competencies

ACE participants are required to complete the Educator Accomplished Practices Self-Assessment. This assessment creates the opportunity for program participants to engage in an introspective activity that will assist with benchmarking personal skill levels in relation to the twelve Educator Accomplished Practices. After program participants complete the pre-assessment, administrators, site-based instructional coaches and teacher coaches assist with the creation of an Individual Learning Plan (ILP) that is used for continuous improvement and professional growth.

Individual Action Plan/Individual Learning Plan

Broward's Individual Learning Plan (ILP), in conjunction with the Professional Growth Plan (PGP) are designed to help teachers identify individual developmental needs in order to improve student performance, guide the staff development choices, and support the implementation of each school's improvement plan (SIP). The ILP is used to guide the personal professional development of new educators while to PGP focuses on the new educators' staff development that is directly aligned to the school's improvement plan.

Each school administrator maintains a PGP for each instructional employee assigned to the school. The PGP must:

- Be related to specific performance data for the students to whom the teacher is assigned.
- Define the staff development objective and specific measurable improvements expected in student performance as a result of the staff development event(s).
- Include an evaluation component that determines the effectiveness of the PGP.

PGPs are initiated in the early fall and a final review is conducted in late spring of each year. Teachers and their administrators collaborate to determine what staff development would be appropriate for the teachers' professional growth.

Post-Evaluation/Summative Assessment System

The FPMS is a performance appraisal program designed to identify strengths and weaknesses in the teacher's teaching ability. All new educators in the state of Florida are required to be part of a teacher program with an evaluation strand. The FPMS summative must be conducted within the first 45 days of a teacher's employment and again after 160 days.

The FPMS is divided into six teaching domains. These domains include: (1) Instructional Planning, (2) Management of Student Conduct, (3) Instructional Organization and Development, (4) Presentation of the Subject Matter, (5) Communication: verbal & nonverbal, (6) Testing & Evaluation. The summative instrument serves as a global observation of domains, indicating frequencies of teacher behaviors. More indicators on the left side positively impact student achievement.

A building level administrator who has been certified to administer the summative instrument conducts the summative. After the initial evaluation is completed the administrator meets with the teacher to review the frequencies in each of the domains. A plan of action is discussed to assist the teacher with increasing the domains that have the greatest impact on student learning. The Peer teacher follows up with the data from the summative and conducts three formative observations in the areas of greatest need.

This program has had a positive impact on the quality of instruction in Broward County.

Standards-based method of determining mastery of the professional education competencies

In Broward County Public Schools, each principal is responsible for verifying that a new educator meets the sixteen indicators of the State Competency Demonstration Checklist (CDC). Principals meet with each new educator to develop a yearlong plan for achieving mastery in each of the sixteen areas. The methods of demonstration include: Summative Observation, Planning/Record Keeping, Conference/Interview, Informal Observation, Portfolio Demonstration, and other methods that are agreed upon by the principal and new educator. The principal and new educator will agree upon the method(s) of demonstration for each of the competency areas, and set a timeline to review progress.

For example, Competency #1 - "Write and speak in a logical and understandable style, using appropriate grammar and sentence structure, and demonstrate a command of standard English,

enunciation, clarity of oral directions, and pace and precision in speaking" may be demonstrated by achieving passing scores on all sections of the General Knowledge Test as well as direct informal observations by the principal or other administrative staff.

At the end of the academic year, or at such time as the new educator has demonstrated mastery in all of the areas, the principal verifies the new educator's mastery and sends the CDC to the Office of Certification in Broward County Public Schools for processing.

Measurable set of skills, behaviors or expectations that form the basis for the assessment of each FEAP-recommend at least three measures per FEAP

Accomplished Practice	Initial Assessment	Staff Development	Method of Demonstration	Artifacts for Portfolio
Assessment	Florida Educator Accomplished Practices Self-Assessment	Learning Activities Accomplished Practice 1	Completion of Assessment Tasks 1.1.1, 1.2.1, 1.3.2, 1.4.2, 1.5.1	Products from Assessment Tasks
Communication	Florida Educator Accomplished Practices Self-Assessment & FPMS Summative Screening	Learning Activities Accomplished Practice 2	Completion of Assessment Tasks 2.1.2, 2.2.1, 2.3.1	Products from Assessment Tasks
Continuous Improvement	FPMS Summative Screening	Learning Activities Accomplished Practice 3	IPDP/PGP	IPDP/PGP
Critical Thinking	FPMS Summative Screening	Learning Activities Accomplished Practice 4	Completion of Assessment Tasks 4.1 2.1, 4.3.2, 4.4.1	Products from Assessment Tasks
Diversity		Learning Activities Accomplished Practice 5 ESOL Training New Teacher Academy Days 1 and 2	Completion of ESOL Training (60 hours) Assessment Task 5.1.1, 5.2.1, 5.3.1	In-service record completion of ESOL and Assessment Task 5.1.1, 5.2.1, 5.3.1
Ethics		Learning Activities Accomplished Practice 6 Broward Teachers' Union Liability/Professional Standards at NTO & New Teacher Academy Days 1 and 2	Assessment Tasks 6.1.2, 6.2.2	Products from Assessment Tasks 6.1.2, 6.2.2
Human Development & Learning	Florida Educator Accomplished Practices Self-Assessment	Learning Activities Accomplished Practice 7	Completion of Assessment Tasks 7.1.2, 7.2.2, 7.3.1	Products from Assessment Tasks 7.1.2, 7.2.2, 7.3.1
Knowledge of Subject Matter		Learning Activities Accomplished Practice 8	Completion of Learning Activities 8C, 8D, 8F, 8G, 8H and Completion of Assessment Tasks 8.2.2, 8.4.1	Products from Learning Activities 8C, 8D, 8F, 8G, 8H and Products from Assessment Tasks 8.2.2, 8.4.1
Learning Environment	FPMS Summative Screening	Learning Activities Accomplished Practice 9 Learning Environment ❑ Attendance at New Teacher Academy ❑ Effective Teaching Behaviors CD-ROM	Completion of Workbook in Effective Teaching Behaviors CD-ROM	❑ Copies of Formative Observations Domains 2 and 3 ❑ Effective Teaching Behaviors Workbook
Planning	FPMS Formative Domain 1 - Planning	Learning Activities Accomplished Practice 10	Completion of Assessment Tasks 10.1.1, 10.2.2, 10.3.1	Products of Assessment Tasks and completed rubrics.
Role of the Teacher	Florida Educator Accomplished Practices Self-Assessment	Learning Activities Accomplished Practice 11	❑ Completion of Child Abuse Awareness Workshop ❑ Prof Growth Plan ❑ Competency Demonstration Checklist ❑ Completion of Assessment Task 11.2.1	In-service record completion of Child Abuse Awareness Products of Assessment Tasks 11.2.1
Technology	Broward County Public Schools' Technology Inventory	Learning Activities Accomplished Practice 12	Completion of DETA One & Two or Completion of Assessment Tasks 12.1, 12.2.1, 12.3.1, 12.3.2	❑ Deta One – Project Based Learning or Web Quest ❑ Deta Two - A multimedia learning activity ❑ Products of Assessment Tasks and completed rubrics
Reading Component			Completion of Broward's Competency 2 Course - Reading Endorsement Program or Completion of FOR-PD Competency 2	Completion of Reading Endorsement Program or Completion of FOR-PD Competency 2

Scoring rubrics that will yield valid, reliable, and unbiased decisions about teacher knowledge and skills (highly recommended) and description and availability of alternative tasks for teachers who have difficulty with a given task

Broward is proposing alternatives to the Desire2Learn assessment tasks in the areas of Continuous Improvement, Knowledge of Subject Matter, Learning Environment, Role of the Teacher, and Technology. The Diversity and Role of the Teacher practices entail a combination of on-line courses and specific assessment tasks in the given practice.

Teachers in the ACE program are continuously given the opportunity for personal assessment that will identify opportunities for personal growth and development. To facilitate this process, the district utilizes a classroom practice rubric that was designed as a staff development needs assessment instrument. The classroom practice rubric was adapted from the work of Charlotte Danielson in Enhancing Professional Practice (1996). The rubric addresses accomplished practices in the areas of: Communication, Diversity, Human Development and Learning, Learning Environment, and Planning. The rubric also incorporates the standards of the Florida Performance Measurement System in the following domains: Planning, Management of Student Conduct, Instructional Organization and Development, Presentation of Subject Matter and Communication. In consideration of the standards of the Instructional Personnel Assessment System, the rubric addresses: Instructional Planning Communication, Classroom Management, Lesson Management, Lesson Presentation, Behavior Management, Subject Matter Knowledge and Student Performance Evaluation.

The rubric assists teachers in identifying their levels of readiness for staff development at the foundational level (staff development activities which support practitioners in acquiring knowledge and comprehension of critical content and strategies), application level (staff development activities which support practitioners in the application and analysis of critical content and strategies), and accomplished level (staff development activities whereby practitioners refine and expand their practice).

Through scheduled (though informal) observation activities with the teacher coach and site-based instructional coach, ACE participants will receive immediate feedback and coaching in the following areas:

Organizing Physical Space
Establishing a Culture for Learning
Creating an Environment of Respect and Rapport
Managing Classroom Procedures
Managing Student Behavior
Engaging Students in Learning
Communicating Clearly and Accurately
Using Questioning and Discussion Techniques
Providing Feedback to Student
Demonstrating Flexibility and Responsiveness

Description and availability of alternative tasks for teachers who have difficulty with a given task.

Should a teacher have difficulty completing an assessment task due to any disabilities, a Specialized Learning Plan will be created for that individual teacher. The teacher, teacher coach, site principal and program coordinator will formulate the plan to ensure that the needs of the individual teacher are met. The teacher coach will monitor the teacher's progress through the Specialized Learning Plan and report results to the principal and program coordinator.

District monitoring system to ensure that decisions are made according to district and state expectations at every level

Because the Alternative Certification for Educators program is funded (in part) through Title II dollars, a comprehensive, formal annual evaluation is required. The Research and Evaluation department of Broward Schools contracts with outside research specialists to conduct the evaluation. The evaluators have the responsibility of measuring the program's effectiveness in relation to its administration of the major program components:

- Survival training to ensure an initial period of preparation before the teacher assumes responsibility for a classroom.
- A CD-ROM to train users on features of the web-based learning management system used to deliver the learning activities.
- Online training for mentors and online assessors to ensure appropriate skill for support of the ACE participants.
- A support team to coordinate and support the professional development of the teacher including: an online mentor, an in-school peer teacher coach, building level administrative support, and the support of an outside educator such as a retired teacher.
- Opportunities for supporting roles by collaborative partners to assist school district implementation.
- Online professional preparation learning activities to provide in-depth, in-time acquisition of the FEAP.
- A summative assessment system that verifies demonstration of educator competencies via completion of assessment activities and tasks.
- A tracking tool that permits district users to chart the progress of each participant throughout completion of all assessment tasks and activities.

Monitoring system to ensure protected classes perform equally as well as non-protected classes

In addition to the extensive mentoring component offered through the ACE program that is provided to all participants, the ACE program coordinator will monitor the progress of participants and will adjust strategies as appropriate to ensure the equal access, participation, and representation of underrepresented groups is protected. Further, the project coordinator will monitor program demographics by ensuring that participants' sex, race and ethnic classifications match the district's demographic breakdown. Program recruitment techniques and sources will also be monitored in light of the district's Equal Employment Plan goals.

Description of Professional Education Preparation Content Knowledge

In depth descriptions of all component parts; Demonstration direct tie to 12 Florida Educator Accomplished Practices; Inclusion of methodologies for assuring the ability of all students to read, write, and compute; New Reading requirement with a minimum coverage of Reading Endorsement Competency 2

Educator Accomplished Practices

The following is a listing of the twelve Educator Accomplished Practices with delivery descriptions that are designed to support competency development in each area.

#1 – Assessment

Completion of Assessment Tasks: 1.1.1, 1.2.1, 1.3.1, 1.4.2, and 1.5.1

#2 – Communication

Task 2A – Replace task 2A with a passing score on the General Knowledge Test Essay component.

Task 2B – Use first videotape to review competencies addressed in this section. Only use subsequent tapings, if participant does not score at the demonstrated rating.

Task 2C – Conduct initial observation, and if participant does not rate at demonstrated, perform subsequent observations.

#3 – Continuous Improvement

Each school district is mandated by the Florida Department of Education to implement an Individual Professional Development Plan. In Broward County, this is the Professional Growth Plan – PGP. The PGP is initiated in the early fall during the first semester of school. Student achievement data (including FCAT and School Improvement Plans) is used to determine the staff development needed by individual teachers to positively impact student achievement in their classrooms. Administrators play a key role in the development of the Professional Growth Plans though in-depth conversations with teachers. At the end of each school year, administrators and teachers collaboratively review the data to determine the impact of the professional development program implemented by each teacher.

#4 – Critical Thinking

Completion of Assessment Tasks: 4.1_4.2, 4.3.2, 4.4.1

#5 – Diversity

To ensure that all teachers are in compliance with the Florida Meta-Consent Decree, ESOL courses are available to all teachers needing ESOL endorsement. Depending upon a teacher's category, he/she must fulfill between 60 and 300 hours of ESOL training. This training provides

the teacher with foundation knowledge about accommodating Limited English Proficient students and introduces teachers to cultural differences. In addition to the ESOL training, Broward County Public Schools' ACE teachers will complete Assessment Tasks 52.1 (Diversity Accommodations) and 5.3.1 (Individual Education Plan).

#6 – Ethics

Each educator new to Broward County Public Schools is required to attend New Teacher Orientation. It is offered twice yearly – in August and again in January. The Broward Teachers' Union conducts an information session regarding Teacher Liability that includes ethical conduct of educators.

New Teacher Academy also addresses this component. One day is spent on professionalism. The activities (many of which are small-group based) are centered on the Florida Educator Code of Professional Conduct. Teachers cover all of the indicators in the Code of Ethics to ensure their deep understanding of the role of a teacher.

In addition, ACE teachers will complete the Case Study Examples in Assessment Task 6.1.2 – Slippery Situations, and 6.3.1 – Legal Dilemmas.

#7 – Human Development and Learning

Completion of assessment tasks numbers: 7.1.2, 7.2.2 and 7.3.1

#8 – Knowledge of Subject Matter

Passing score on the State Subject Area Examination, Completion of Learning Activities: 8C, 8D, 8F, 8G, 8H and completion of assessment tasks numbers: 8.2.2 and 8.4.1

#9 – Learning Environment

Completion of Assessment Tasks: 5.1.1, 5.2.1, 5.3.1 and the Effective Teaching Behaviors CD-ROM administered training.

Broward County Public Schools created a CD-ROM titled "The Effective Teaching Behaviors." This is the program used by the Florida Department of Education for its online 'survival course' for alternative certification. The content is based upon the Florida Performance Management System (FPMS) six domains: Planning, Management of Student Conduct, Instructional Organization and Development, Presentation of Subject Matter, Verbal and Non-verbal Communication, and Assessment. Teachers using "The Effective Teaching Behaviors" CD-ROM are provided with a workbook. They complete the exercises in the workbook after using the CD-ROM as a method of showing mastery in the content area.

#10 – Planning

Completion of Assessment Task: 10.1.1, 10.2.2 and 10.3.1

#11 – Role of the Teacher

ACE participants will be required to successfully complete the district's Child Abuse Awareness online course. Child Abuse prevention activities are centered around April that is recognized as National Child Abuse Prevention month. The training provided through the program increases the awareness and quality of teacher instruction as they learn additional supportive techniques to use with high-risk students. The district's social worker trains all newly hired teachers through coordination with the Human Resources Department.

Participants who complete this training will be able to identify and report known and/or suspected child abuse, abandonment, or neglect. They will learn and utilize the appropriate supportive strategies to use with families and students in the classroom environment. They will also learn the legal ramifications of the process and be able to describe the abuse indicators.

ACE participants will also meet with the child abuse designee at their school/program site to review a completed child abuse report form and case example. School-based designees will consult with participants as necessary during the school year and will facilitate their reporting of known or suspected child abuse, abandonment, or neglect. Participants will meet with other new educators at the school to discuss and review case examples. In addition, they will review and practice reporting skills as part of the facilitative process with the school-based child abuse designee. Participants will receive written guides for long-term use and the trainer will be available for coaching, consultation and support.

In-service points are awarded to participants and the training is designed with comprehensive follow-up and feedback components.

Broward's Alternative Certification Program will use the State Competency Demonstration Checklist (CDC) as a measure of mastery of the role of the teacher.

#12 – Technology

To attain required technology competencies, participants will attend and successfully complete the Digital Education Teacher Academy (DETA). DETA is a fast-track graduate-level course at Florida Atlantic University where current teachers in Broward County schools are immersed in hands-on experiential technological activities to improve student achievement in reading, mathematics, and science. Educators learn strategies for integrating technology that can be incorporated into daily practice, and for using new technologies such as Internet-based curriculum, digital tools, handheld computers and scientific software.

DETA One provides a firm foundation on the process of integrating technology into reading, math and all core curriculum using standards-based instruction and digital tools to improve student learning.

- The class meets for five full days on Saturdays during the school year or as week-long sessions during the summer.
- Principals may arrange for a whole school implementation of DETA One that meets their instructional and scheduling needs.
- Participants earn three hours of graduate credit. The School Board of Broward County pays all tuition and fees.

• Participants should have intermediate technology skills and must be willing to participate in follow-up and support sessions while integrating their learning into the classroom.

DETA Two examines the role of data-driven instruction and assessment.
• Participants investigate how technology assists educators in collecting, analyzing, and interpreting student achievement data to shape student progress and performance in reading, math, and all core curriculum content areas.
• Participants develop their own multimedia projects as they explore how students can use multimedia to demonstrate mastery of knowledge.
• Participants earn three hours of graduate credit. The School Board of Broward County pays all tuition and fees.
• Participants must complete DETA One as a prerequisite for DETA Two.

Program participants also have the option of completing assessments tasks associated with Accomplished Practice #12.

Alignment of Learning Activities and Professional Development Components to the Florida Educator Accomplished Practices.

Accomplished Practice	Professional Development Component	F.E.A.P. Indicator
Diversity	ESOL Training and New Teacher Academy Days 1 and 2	5.1 – Accepts and values students from diverse cultures and linguistic backgrounds and treats all students equitably. 5.2 – Fosters a learning environment in which all students are treated equitably. 5.3 – Recognizes the cultural, linguistic and experiential diversity of students. 5.5 – Has a repertoire of teaching techniques and strategies to effectively instruct all students. 5.8 – Employs techniques useful in creating a climate of openness, mutual respect, support, and inquiry.
Ethics	Broward Teachers' Union Liability/Professional Standards at New Teacher Orientation and New Teacher Academy Days 1 and 2	6.1 – Makes reasonable effort to protect students from conditions harmful to learning and/or to the student's mental and/or physical health and/or safety. 6.2 – Does not unreasonably restrain a student from pursuit of learning. 6.3 – Does not unreasonably deny a student access to diverse points of view. 6.5 – Does not intentionally distort or misrepresent facts concerning an educational matter in direct or indirect public expression. 6.7 – Maintains honesty in all professional dealings.
Learning Environment	New Teacher Academy Days 1 and 2 Effective Teaching Behaviors CD-ROM	9.1 – Practices a variety of techniques for establishing smooth and efficient routines. 9.2 – Applies the established rules and standards for behaviors consistently and equitably. 9.3 – Involves students in the management of learning environments including establishing rules and standards for behavior. 9.5 – Uses techniques to align student needs, instructional settings, and activities. 9.6 – Provides opportunities for students to be accountable for their own behavior 9.9 – Monitors learning activities by providing feedback and reinforcement to students. 9.12 – Uses learning time effectively, maintains instructional momentum, and makes effective use of time for administrative and organization activities.
Technology	DETA One and DETA Two	12.1 – Utilizes instructional and other electronic networks to gather information. 12.3 – Selects and utilizes education software for instruction and management purposes based upon reviews and recommendations of other professionals. 12.6 – Uses technology in lesson and material preparation 12.7 – Uses technology to assist with instructional and classroom management.

Enhanced Reading Component

To address Competency 2: Foundations of Research-Based Practices, ACE program participants will be required to enroll in the Foundations of Research-Based Practices course that is offered by the district. This course is approved by the district's board and is offered throughout the school year. As part of the district's Reading Endorsement Program, successful completers are awarded 60 in-service points.

The objective of the course is for participants to gain a greater understanding of the reading process and to apply course content to maximize instructional effectiveness for students from varying backgrounds and diverse cultures. The course is specifically centered on the development of the skills and knowledge deemed essential to the teaching of reading.

Specific Objectives that will be addressed in the Foundations of Research-Based Practices Course:

- Identify explicit, systematic instructional plans for scaffolding development of phonemic analysis of the sounds of words.
- Identify explicit, systematic instructional plans for scaffolding development from emergent through advanced phonics with words from both informal and academic language.
- Identify structural patterns of words as they relate to reading development and reading performance.
- Apply structural analysis to word.
- Understand the role of reading fluency in development of the reading process.
- Identify and apply principles of English morphology as they relate to language acquisition.
- Identify explicit, systematic instructional plans for scaffolding vocabulary and concept development.
- Understand the impact of variations in written language of different text structures on the construction of meaning.
- Identify explicit, systematic instructional plans for scaffolding development of comprehension skills and cognition.
- Identify comprehensive instructional plans that synchronize the major reading components.
- Identify explicit, systematic instructional plan for scaffolding content area vocabulary development and reading skills.
- Understand the interdependence between each of the major reading components and their effect upon fluency in the reading process.
- Identify resources and research-based practices that create language-rich and print-rich environments.
- Identify research-based guidelines and selection tools for choosing literature and expository text appropriate to students' interests and independent reading proficiency.

Program participants will also be given the option of completion of Florida Online Reading-Professional Development (FOR-PD) that is offered by the University of Central Florida.

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Strengthen Leadership: For public education to benefit from the rapidly evolving development of information and communication technology, leaders at every level–school, district, and state–must not only supervise, but provide informed, creative, and ultimately transformative leadership for systemic change. **Recommendations** • Invest in leadership development ***programs*** to develop a new generation of tech-savvy leaders at every level. • ***Retool*** administrator education programs to provide training in technology decision-making and organizational change. • Develop ***partnerships*** between schools, higher education and the community. • Encourage creative technology partnerships with the business community. • Empower ***students***' participation in the planning process.	***Partnerships:*** • Technology Advisory Committee • Broward County Educational Consortium	***Programs*:** • Digital Education Teacher Academies: o DETA for Administrator o DETA One o DETA Two ***Retool*:** • Integration with HRD Leadership Development Programs: o Intern Principal o Assistant Principals o Lead Teacher o Prelude Teachers ***Partnership*** • DETA ***Student Participation***: • DLES Study	***Programs*:** • e-Agenda • Classroom Walk Through ***Partnership:*** • Teaching & Leadership Center at FAU

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Consider Innovative Budgeting: Needed technology often can be successfully funded through innovative restructuring and reallocation of existing budgets to realize efficiencies and cost savings. The new focus begins with the educational objective and ***evaluates funding requests*** – for technology or other programs – in terms of how they support student learning. Today, every program in *No Child Left Behind* is an opportunity for technology funding–but the focus is on how the funding will help attain specific educational goals • Determine the ***total costs*** for technology as a percentage of total spending. • Consider a systemic ***restructuring of budgets*** to realize efficiencies, cost savings and reallocation. This can include reallocations in expenditures on textbooks, instructional supplies, and space and computer labs. • Consider ***leasing*** with 3-5 year ***refresh*** cycles. • Create a technology innovation fund to ***carry*** funds ***over*** yearly budget cycles.	***Total Costs*** • Funding Plan • TCO Model ***Restructure Budget*** • Funding Plan • Capital Budget Plan ***Leasing:*** • Leasing Option in Plan ***Refresh:*** • 3-5 Year Refresh ***Carry Over:*** • PSTF funds	***Restructure Budget:*** • Grants ***Leasing***: • Lease vs. Purchase of Computers	***Evaluating funding requests*** • Budget Forecasting Committee • Grants Review Council

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Improve Teacher Training: Teachers have more resources available through technology than ever before, but have not received sufficient training in the effective use of technology to enhance learning. Teachers need access to research, examples, and innovations as well as ***staff development to learn best practices***. • Improve the preparation of ***new teachers*** in the use of technology. • Ensure that every teacher has the opportunity to take ***online*** learning courses. • Improve the quality and consistency of ***teacher education*** through measurement, accountability and increased technology resources. • Ensure that every teacher knows ***how to use data*** to personalize instruction. o This is marked by the ability to interpret data to understand student progress and challenges, drive daily decisions and design instructional interventions to customize instruction for every student's unique needs.	***How to Use Data:*** • Data Warehouse • Virtual Counselor	***Staff Development to Learn Best Practices***: • DETA One • DETA Two • DETA Learning Community ***Online:*** • Broward Virtual University ***Teacher Education:*** • DETA One • DETA Two • DETA Learning Community • Peer Coaching ***How to Use Data:*** • BEEP • DETA Two	***Staff Development Needs Assessment:*** • Electronic PGP ***New Teachers:*** • Teaching and Leadership Center @ FAU • New Teacher Academy • Prelude Teachers ***Online:*** • Broward Virtual University ***Teacher Education:*** • Teaching and Leadership Center @ FAU ***How to Use Data:*** • Electronic AIP ***New Project:*** • e-Classroom

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Support E-Learning and Virtual Schools In the past five years there has been an explosive growth in organized online instruction (e-learning) and "virtual" schools, making it possible for students at all levels to receive high quality supplemental or full courses of instruction personalized to their needs. Traditional schools are turning to these services to expand opportunities and choices for students and professional development for teachers • Provide every ***student*** access to ***e-learning***. • Enable every ***teacher*** to participate in ***e-learning*** training. • Encourage the use of e-learning options to meet *No Child Left Behind* requirements for ***highly qualified teachers***, supplemental services and parental choice. • Explore creative ways to fund e-learning opportunities. • Develop ***quality measures and accreditation standards*** for e-learning that mirror those required for course credit.	***Student e-learning*** • Electronic Textbook resources/e-books • Broward Virtual School • (BeVD) • BECON/ Video Conferencing ***Teacher e-Learning*** • Electronic Textbook resources/e-books • BECON/Video Conferencing	***Student e-learning*** • Standard Curriculum Resources: Electronic Textbook resources/e-books ***Teacher e-Learning*** • Standard Curriculum Resources: Electronic Textbook resources/e-books • DETA ***Highly qualified teachers*** • DETA ***Quality measures and accreditation standards*** • DETA –college credit	***Student e-learning*** • Broward Virtual Middle School ***Teacher e-Learning*** • Broward Virtual University ***Highly qualified teachers*** • Broward Virtual University – certification courses ***Quality measures and accreditation standards*** • Broward Virtual University – certification courses

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Encourage Broadband Access Most public schools, colleges, and universities now have access to high-speed, high-capacity broadband communications. However, broadband access 24 hours a day, seven days a week, 365 days a year could help teachers and students to realize the full potential of this technology and broadband technology needs to be properly maintained. • Thoroughly evaluate existing ***technology infrastructure*** and access to ***broadband*** to determine current capacities and explore ways to ensure its reliability. • Encourage that ***broadband*** is available all the way to the end-user for data management, online and technology-based assessments, e-learning, and accessing high-quality digital content. • Encourage the availability of ***adequate technical support*** to manage and maintain computer networks, maximize educational uptime and plan for future needs	***Technology infrastructure*** • Short Term & Long Term Goals ***Adequate technical support*** • Technology Liaison • Contact Program • Technology Support Certification Program • Education Technology Services Help Desk • CRM	***Technology infrastructure*** • Wireless Technology in the Classroom ***Adequate technical support*** • Purchase of 24/7 web resources for teachers (ex. Atomic Learning)	***Broadband:*** • BECON • One Broward Initiative

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Move to Digital Content A perennial problem for schools, teachers and students is that textbooks are increasingly expensive, quickly outdated and physically cumbersome. A move away from reliance on textbooks to the use of multimedia or online information (digital content) offers many advantages, including cost savings, increased efficiency, improved accessibility, and enhancing learning opportunities in a format that engages today's web-savvy students. • Ensure that teachers and students are adequately trained in the use of ***online content***.	***Teacher use of online content*** • Broward Virtual University	***Teacher use of online content*** • DETA One • DETA Two • DETA Learning Community ***Student use of online content*** Digital Learning Environment Study	***Student use of online content*** • Broward Virtual School (BeVD)
• Encourage ubiquitous ***access*** to computers and connectivity for each student.	***Access*** Plan 4	***Access*** • Digital Learning Environment Study • Home Access to Technology	
• Consider the costs and benefits of online content, aligned with rigorous state academic standards, as part of a ***systemic approach*** to creating resources for students to customize learning to their individual needs.		***Systemic approach*** • BEEP • DETA Learning Community	***Systemic approach*** SBBC policy on Instructional Materials (electronic textbooks)

National Education Technology Plan	Broward Information Technology Plan (IT Blue Print)	Broward Instructional Technology Plan	Other Broward Programs
Integrate Data Systems Integrated, interoperable data systems are the key to better allocation of resources, greater management efficiency, and online and technology-based assessments of student performance that empower educators to transform teaching and personalize instruction.			
• Establish a plan to ***integrate data systems*** so that administrators and educators have the information they need to increase efficiency and improve student learning.	***Integrate data systems*** • Data Warehouse • Virtual Counselor	***Integrate data systems*** • BEEP	
• ***Use data*** from both administrative and instructional systems to understand relationships between decisions, allocation of resources and student achievement.	***Use data*** • CELT Report	***Use data*** • Impact study of DETA • DLES	
• Ensure ***interoperability***. For example, consider School Interoperability Framework (SIF) Compliance Certification as a requirement in all RFPs and purchasing decisions.	***Interoperability*** • Purchasing Guidelines		
• ***Use assessment results*** to inform and differentiate instruction for every child.	***Use assessment results*** • Data Warehouse • Virtual Counselor	***Use assessment results*** • DETA Two	***Use assessment results*** • Electronic AIP

For Media Specialists

- ***Library.Solution*** *(Library Circulation Automation System)*
- ***Library Media Services Handbook***



- ***Calendars***
- ***Professional Growth***
- ***Professional Organizations***
- ***Record Management***
- ***Research/Studies***
- ***Standards***

Search

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Learning Resources Department / jw
Last updated 01/19/05 10/12/04

Professional Growth for Media Specialists

Professional Growth Plan

Broward Schools¡¦ Professional Growth Plan (PGP) is the district¡¦s response to the State¡¦s call to have *all* instructional personnel engaged in meaningful staff development activities that directly relate to gains in student performance. This Professional Growth Plan is teacher-directed and focuses on Sunshine State Standards, subject content, teaching methods, technology, assessment and data analysis, classroom management, and/or school safety. The purpose of the Professional Growth Plan (PGP) is to guide educators¡¦ staff development choices. PGPs are essential to the implementation of each school¡¦s improvement plan (SIP), all instructional staffs¡¦ professional growth, and ultimately to improving student performance. PGPs are created to address individual teacher¡¦s staff development needs in order to improve teaching practices that will meet the needs of students. The district determines the type and amount of future staff development offerings based on information gathered from the PGP.Of course, employees may take additional training that does not necessarily fall into the above categories but will help them with their job performance responsibilities.

Professional Growth Plan Process

The PGP format and process has been revised to align to the Florida Professional Development System Evaluation Protocol and to incorporate the Plan, Do, Study, Act, (PDSA) cycle for continuous improvement. Each instructional person will receive directions regarding the PGP form at their location, complete it in three phases, and meet with their administrator to discuss their plans for professional growth. Employees will evaluate staff development activities as part of the appraisal process as an ongoing process.

Professional Growth Plan Forms

Employees must select at least one target area in which they must complete professional growth activities that will enable them to acquire measurable gains in student achievement and identify the instrument(s) that will be used to document the gains. 2 Examples of growth activities include:

- Workshops
- Conferences
- Study groups
- Action research
- Peer coaching
- College courses
- Independent study

Independent Study

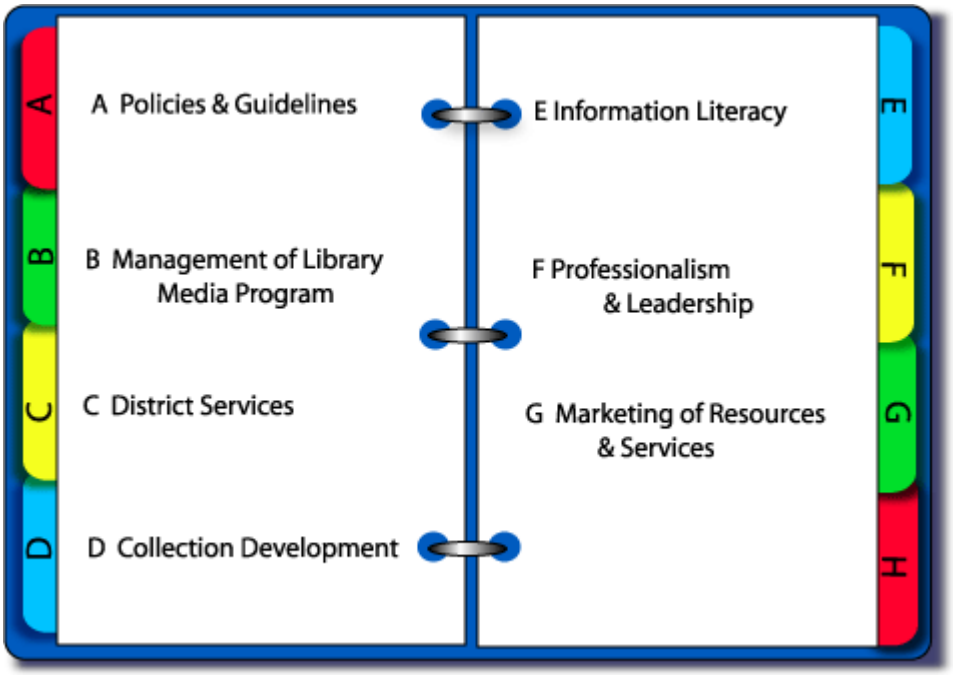
Much of the information that a teacher must learn to meet the targeted outcomes may be acquired by independently completing activities such as:

- Reading a book
- Viewing a video
- Exploring the internet
- Taking an online tutorial
- Participating in a learning community
- Attending seminars or training for which no inservice points are awarded

These activities may be included in the PGP and inservice points may be earned for the hours involved in independent study. To receive the inservice points, the teacher must complete the appropriate Staff Development Initiation Forms and submit them to HRD for approval no later than two (2) weeks prior to the start of the activity. Each Inservice Facilitator has been provided with the appropriate forms (SDI-1 and SDI-2) as well as instructions on their completion.) District Sponsored TrainingNew media specialists in Broward County attend training offered by the Learning Resources Department that is specifically designed to orient them to Broward County¡¦s media programs. They are also assigned a media specialist mentor. Additionally, there are two meetings each year that all media specialists are asked to attend ¡V one during the planning week prior to the start of the school year in August and the other on the mid-year Teacher Planning Day (usually in February). The Broward County Association of Media Specialists (BCAMS) meets monthly and offers an opportunity for media specialists to engage in a learning community to collaboratively discuss and learn about issues related to library media. Similarly, media specialists in some Innovation Zones have organized meetings on Early Release Days to discuss common concerns and share best practices. Any additional training that is offered by the Learning Resources Department will be announced via the school district¡¦s e-mail system, Media Specialists¡¦ Conference, and/or NewsFlash (at this web site). Training offered by other district departments is included in the Staff Development Calendar at http://www.broward.k12.fl.us/hrdcal/, including classes on reading, language arts, writing, technology, etc.

Library Media Services Handbook

Click on the tab to select the chapter.



Coming Soon - Alphabetical index

Learning Resources Department

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Library.Solution

Library.Solution is the *library media center automation system* used in all Broward Public Schools. This networked system provides total district connectivity, creating access to a centralized catalog of school library media resources, enabling schools to share these resources.

- **Adding items** (On-the-Fly)
  - **Books**
    - How to add Books
    - Print collection codes
  - **Audiovisual materials**
    - How to add Audiovisual
    - Audiovisual collection codes
  - **Equipment**
    - How to add equipment
    - "How to" example
    - Equipment Codes
- **Barcodes**
  - Barcode ordering information
  - Patron Barcodes
  - Barcode Number Change
- **Bookings**
  - How to book an item via SAVVYCat
- **Bookmark website**
  - How to bookmark SAVVYCat
- **Changing Information**
  - Barcode Number Change
  - Circulation Rules Change
  - Call Number or Collection Change
  - Due Date Change
  - Responsible Party Change
- **Circulation Functions**
  - How to open Library.Solution
  - Launch Circulation
  - **Patron Transactions - F2**
    - Checkout
    - Renew Items
    - Equipment Checkout to Classrooms
    - Add Parent as Patron
    - Print Patron Info
  - **Check In/In House Use - F3**
    - Check In
    - Special Status

- In House Use
- **Item/Title Info - F4**
  - Search by ISBN
  - Search by Call Number
- **Circulation Guidelines**
- **Deleting Items**
  - Form for deleting items
- **Dewey Decimal System**
- **FAQs**
- **Forms**
  - Adding Books
  - Adding AV Materials
  - Deleting Items
  - Inventory Checklist
  - Inventory Job List - Blank
  - Inventory Job List - Sample
- **Help**
- **Holds**
  - Place holds
  - Check holds
- **Inventory**
  - Inventory Preparation
  - Inventory Instructions
  - Inventory Guidelines
  - Ni-Cad Batteries Information
  - Inventory Checklist
  - Inventory Job List - Blank
  - Inventory Job List - Sample
- **Lost Items**
  - Charge Types
  - Mark an item lost
  - Record payment for an item
  - Change the status when a lost item is returned
  - Delete the account balance from a patron record
- **MARC record**
- **Overdues**
  - Overdue Item
  - Long-Overdue Item
  - Lost Items
  - How to handle money collected from overdue items
  - Overdue reports
- **Patron Database**
  - Adding Parents as Patrons
  - Responsible Party Change
- **Reports**
- **SAVVYCat Public Access Catalog (PAC)**

- What is SAVVYCat?
- A SAVVYSearcher is...
- How to search for a book using SAVVYCat
- Boolean Searching using SAVVYCat
- SAVVYCat Search Screen
- How to bookmark
- To access SAVVYCat from home go to http://savvycat.broward.k12.fl.us

- **Teeny Beepers and Check Cards**
  - Ordering Information



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12/01/2003 last update lrd/sb

8.2

A list of sources of ongoing training and technical assistance available to teachers and administrators served by the district, such as State technology offices, intermediate educational support units, regional education training facilities or institutions of higher learning.



BCPS currently offers a wide array of staff-development strategies and opportunities for administrators, educators, and support staff. These offerings are detailed in greater depth in both sections 3.3.3 and 3.3.4 and the report submitted by the Digital Natives Committee on April 13, 2004, entitled *Changing the Learning Environment for our Students: Vision into Action*. The following list presents an overview of these existing staff-development strategies to support curriculum and technology integration:

- Broward's Virtual Technology Recognition Project
- Digital Education Teacher Academy (DETA) and DETA Learning Community
- Professional Pathways
- The Magnet Program/Development Office Technology Incentive Program
- Atomic Learning
- Broward Virtual University
- New Teacher Academy

Virtual University currently offers more than seventy-five courses and provides course content, syllabi, specific objectives, prerequisites, materials, dates the courses are offered and registration information. Each course has an experienced facilitator who provides ongoing assistance to participants and monitors their progress. Courses are offered free to all Broward County teachers, including teachers at charter schools and private schools that participate in federal programs. Providing teachers with consistent, high-quality training at their convenience in the comfort of their home is a win-win situation for education. For more information about Virtual University, contact Program Development and Alignment Director Nancy Barba, 754-321-2450. http://www.broward.k12.fl.us/ci/virtual_university

Digital Education Teacher Academy
Executive Summary

The Digital Education Teacher Academy began as a professional development initiative in partnership with the Teaching and Leadership Center @ Florida Atlantic University (FAU) and has evolved into a comprehensive suite of training opportunities. The goal of the program is to provide Broward County teachers with learning strategies, hands-on experiential activities, learning theories and classroom management techniques to integrate technology into daily classroom practice. Teachers learn to use Internet-based curriculum, digital tools, web-based resources and project based learning plans to improve student achievement in all curriculum areas. Teachers can progress through DETA at many levels, depending on their skill level. The chart below indicates the opportunities available to Broward County teachers through DETA.

Staff Development Activity	Skill Level	Delivery Method
Pre-DETA: Focuses on basic technology literacy for the classroom teacher.	Beginner	Series of workshops offered at the school site
Atomic Learning: Online video tutorials that assist teachers with learning how to use software applications.	Beginner	Available on a 24/7 basis from school or from home
DETA One: Comprehensive course focusing on integrating technology into all curriculum areas. ***NOTE: Participant list for DETA One attached***	Intermediate	Graduate Course
DETA Two: Comprehensive course that focuses using technology for data driven decision-making and as an alternative assessment tool.	Intermediate	Workshop offered on Saturdays. Proposed undergraduate college course.
DETA for Administrators: Overview of the role of school leadership in supporting the integration of technology into the curriculum.	Intermediate	Summer workshop
Peer Coaching/Mentoring: Offered in collaboration with the Florida DOE to assist districts with establishing a peer coaching model.	Advanced	Summer workshop and online network throughout the school year.
DETA Learning Community: A series of after school and online activities to support teachers as they extend their learning into daily practice.	Intermediate	After school workshops, online networking.
Virtual Technology Recognition Program: Teachers submit their best practices on integrating technology into the curriculum. Winners are recognized	Advanced	Submit entries via online application process. 10 winners a year are selected.

and their work is included into BEEP.		

The program began with a pilot group in June 2002. Since that time, over 2,000 teachers have taken the initial DETA ONE course with 500 more scheduled for the summer program. DETA is aligned with "No Child Left Behind" mandate that states that by 2006, every eighth grade student will be technologically literate. Attached is a list of program participants in the DETA One course through May 2005.

More opportunities to incorporate DETA into whole school training through a year-long professional development plan will be emphasized. Formal evaluation results have indicated that the initiation of DETA training by the Principal and its implementation as a whole school reform effort results in more effective integration of technology throughout a school.

For more information, visit:
www.broward.k12.fl.us/etscsds/deta

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School Board of Broward County

PROFESSIONAL PATHWAYS

A Continuum of Instructional Professional Development

Professional/ Foundation	Professional Application	Accomplished Practice	Teachers as Leaders
EXAMPLES OF SUPPORT FOR CONTINUOUS IMPROVEMENT			
➢ Field Experiences ➢ Aligned College Courses ➢ BCE Consortium ➢ Professional Development Schools ➢ Alternative Certification in Education (ACE)	➢ New Teacher Academy (NTA) ➢ New Educator Support System (NESS) ➢ Early Release Days ➢ Summer Academies ➢ Professional Development Network (PDN) ➢ Reading Coaches ➢ On-Site and District Staff Development ➢ Professional Growth Plan	➢ Action Research ➢ Demonstration Classrooms ➢ Broward Guild of Teachers Application Process ➢ Zone Coaches ➢ On-Site and District Staff Development ➢ Professional Growth Plan ➢ NBCT Application Process	➢ National Board Certified Teachers ➢ National Board Candidate Mentoring ➢ Broward Guild of Teacher Projects ➢ Teachers as Leaders Program ➢ Participation in the Florida Future Teachers of America (FFTA) ➢ On-Site and District Staff Development ➢ Professional Growth Plan

NTA Outline: Summer 2005
Elementary School

Day 1 **Classroom Management**	Day 2 **Instructional Delivery/Core Content**	Day 3 **Core Content: Reading**	Day 4 **Core Content: Mathematics and Science**	Day 5 **Professionalism**
*Section **1*** Purpose *Section **2** (August only)* Overview of District *Section **3*** What is an Effective Teacher? *Section **4*** FPMS (Effective Teaching Behaviors CD) (For Reference) *Section **7*** Classroom Management	*Section **8*** Curriculum Requirements (SSS) *Section **9*** Writing 1 ½ hours *Section **10*** Multicultural *Section **11*** ESOL *Section **12*** ESE *Section **13*** Instruction *Technology* Teacher Resources (1 ½ hours)	Reading Across the Curriculum *Technology* Teacher Productivity (1 ½ hours)	Core Content: • Mathematics *4 Hours* • Science *2 Hours*	*Section **15*** Professionalism *Section **5*** Florida Educator Accomplished Practices (For Reference) *Section **6*** Ethics and Legal Requirements (For Reference) *Technology* Digital Resources (1 ½ hours)

NTA Outline: Summer 2005
Middle School

Day 1	Day 2	Day 3	Day 4	Day 5
*Section **1*** Purpose *Section **2** (August only)* Overview of District *Section **3*** What is an Effective Teacher? *Section **4*** FPMS (Effective Teaching Behaviors CD) (For Reference) *Section **7*** Classroom Management	Core Content: • Reading • Mathematics • Writing • Science • Social Studies NTA MS teachers with Years 1-3 to be included *Technology* 1 1/2 hours	Reading Across the Curriculum *Section **15*** Professionalism *Section **5*** Florida Educator Accomplished Practices (For Reference) *Section **6*** Ethics and Legal Requirements (For Reference) NTA MS teachers with Years 1-3 to be included for READING only Do not need to be present for Sections 15, 5 and 6 if attended NTA Year previously *Technology* 1 1/2 hours	ALL NEW MIDDLE TEACHERS are to report to individual School Site (7/28)	ALL NEW MIDDLE TEACHERS are to report to individual School Site (7/29)

NTA Outline: Summer 2005
High School

Day 1	Day 2	Day 3	Day 4	Day 5
*Section **1*** Purpose *Section **2** (August only)* Overview of District *Section **3*** What is an Effective Teacher? *Section **4*** FPMS (Effective Teaching Behaviors CD) (For Reference) *Section **7*** Classroom Management	*Section **8*** Curriculum Requirements (SSS) *Section **10*** Multicultural *Section **11*** ESOL *Section **12*** ESE *Section **13*** Instruction *Technology* Teacher Productivity 1 1/2 Hours	Reading Across the Curriculum *Section **14*** FCAT • Bloom's Taxonomy • FCAT Test Items • FCAT Like Questions *Technology* *Teacher Resources* 1 1/2 Hours	Core Content: • Reading • Mathematics • Writing • Science • Social Studies	*Section **15*** Professionalism *Section **5*** Florida Educator Accomplished Practices (For Reference) *Section **6*** Ethics and Legal Requirements (For Reference) *Technology* Digital Resources 1 1/2 Hours

Section IX – Program Evaluation

INTRODUCTION

Section XII, p2 of the IT Blueprint states: "The entire Information Technology Blueprint is designed as a dynamic, living document to be updated regularly to address: 1) emerging technologies; 2) new standards and/or specifications; 3) federal, state, and local regulations/legislations; 4) best practice research both within the district and nationally; and, 5) initiatives implemented within the district."

Section XIII, Monitoring and Evaluation Design (Dec 09, 2004), provides the following guidelines:

PLAN EVALUATION

While implementation monitoring is important, the district needs to give particular emphasis to evaluating the impact of the Information Technology Blueprint, particularly as the plan increases its emphasis on technology integration into teaching and learning and administration and management. The purpose of the evaluation component of a comprehensive SMS (Strategic Management System) is to provide ongoing information on the outcomes.

The outcomes evaluation addresses these questions.
1. How well is the district accomplishing the specific objectives related to each technology initiative?
2. How well is the district accomplishing the specific student technology learning outcomes?
3. How well are the strategic technology initiatives contributing to the success of the district's strategic plan?

Addressing these questions can be accomplished through both formative and summative evaluation. Formative evaluation obtains performance data to inform ongoing refining and redesign while summative evaluation obtains performance data to inform overall judgments regarding the effectiveness of specific technology initiatives.

Steps in the Evaluation Process

The district should take these action steps to develop the evaluation components of the SMS:

- Identify indicators, benchmarks, and measures for each objective

  Indicators are statements that orient the system to a measure of performance that can be used to gauge progress. Each indicator typically focuses on only one aspect of an objective. Related to each indicator will be benchmarks and measures. A benchmark is a specific target that describes an expected level of success. Measures must also be determined. A measure is an item reflecting the evidence needed to answer a research

question, inform an indicator, or determine how close the organization is in achieving a benchmark. A measure typically includes data such as percentage, test scores, ratios, etc. They are similar to indicators but are much more specific and concrete.

Indicators are statements that orient the system to a measure of performance that can be used to gauge progress. Each indicator typically focuses on only one aspect of an objective. In addressing each of these five capacities of districts, the district may use a combination of five types of indicators.

- Outcomes. Measures of outcomes that include student learning, equity of access to technology, and quantity and quality of technology-rich student learning opportunities provided by teachers.
- Output Measures of products and services provided, such as the number of teachers trained, number of curriculum guides with technology skills embedded, and number of classrooms connected to school and district telecommunication networks.
- Input: Measures of resource allocation and use that encompass the ratio of students to computers; resources allocated to education, training, and support activities, and allocation of technology resources across schools.
- Productivity Measures of work performance, such as time to install school networks, hours of training required to produce teachers competent in using technology in their classroom, and average time to respond to requests for technical assistance.
- Demand: Measures of potential markets that include the number of requests for pedagogical and technical assistance, number of teachers needing specific types of training and number of classrooms with obsolete eqipment.

Each of these five types of indicators can be used to describe conditions of performance at district and school levels. Depending upon the level, one unit's input can be another unit's output or impact. For example, the number and percent of teachers using technical support services may be a demand indicator for schools also an impact indicator for the educational technology staff or those responsible for providing training and support services.

- Assign responsibility for evaluating each objective to the appropriate program manager

  Evaluation should be embedded within the appropriate program for each objective. The assessment process should be simultaneously top-down and bottom-up, gathering information from the operating system about what is happening in schools with respect to the objectives, what new or enhanced interventions are needed to obtain the results, and what new or unanticipated outcomes and results are being realized. Program managers need to understand and take responsibility for their own strategy map.

- Select measures and method

Data gathering will require the use of uniform measures and methods for each indicator. Standards should be established for assuring quality data collection and analysis. Qualitative as well as quantitative data are needed. Each program manager must use methods such as focus groups, on-site observations, and participant journals to obtain an indepth picture of what is happening.

- Establish a database for tracking performance measures

  Such databases can be linked to Web-based tools for data entry and analysis. The district should employ databases, preferably electronic, for collecting, organizing, and disseminating data and information in diverse forms to serve multiple audiences. For example, the system could provide guidance in developing databases of best practices in several categories-teaching and learning, communications, administration, and management. These databases could address what is working and why and what is not working and why. Databases could also be used to set up discussions on various instructional and administrative strategies; even chat rooms among teachers and principals are very useful. The intent is to make information available to all using the district's telecommunications infrastructure as well as more traditional means of communication.

- Develop analysis and reporting procedures and formats

  Detailed analytic reports and simple Web-based displays linked to key objectives and indicators should be used. The district evaluation team helps decision makers develop and use a suite of e-tools for collecting, analyzing, and reporting data on selected performance indicators.

- Identify key decision makers requiring specific indicator data

  District decision makers must be targeted regarding their information needs and decision-making contexts. This process should be linked to the Plan-Do-Study-Act cycle. Each strategic technology initiative manager is responsible for reporting on a select number of indicators (4-6) that communicate progress in addressing specific technology objectives. Dashboards are created for each initiative and for the overall Information Technology Blueprint.

- Provide training and support

  The district must provide technical assistance to decision makers in such areas as data collection, data management, data analysis, and communication. The technology of monitoring and evaluation must be complemented by competencies. There must be in organizational capacity to learn and adjust. Database decision-making must become a core competency.

- Support school and district based action research

A growing body of research identifies the characteristics of learning opportunities and environments that positively impact student learning. The district could support schools in their use of action research to identify those specific characteristics and attributes.

- Use technology applications to support evaluation

  The district might develop electronic databases and "scorecards" to automatically alert and inform those who need to know about specific data, such as a principal tracking a new program's performance or a teacher watching her students' progress on a key learning standard. The district could use Web-accessible databases to capture, organize, and make widely available information on numerous small, immediate adjustments made during implementation. These systems can provide up-to-date information on the status of each indicator.

  Effectively implementing these strategies may require talents and resources beyond those currently available in the district. Developing monitoring and evaluation as a core competence is so important, however, that the district may want to develop partnerships with local higher education institutions and other organizations that have expertise in these specific functions. In addition, institutions of higher education offering advanced degrees in technology, research and evaluation, or leadership may view the district's technology initiatives as targets of opportunity for graduate research.

Evaluating Technology Plan Outcomes using SMS

Key SMS features for evaluating the outcomes of the technology plan include:

- Focus on results: Decision makers emphasize assessment of results stated as performance outcomes. They establish processes for engaging stakeholders in identifying what constitutes success.
- Embedded assessment: Emphasis is given to self-assessment and to enhancing the capacity of program managers to evaluate their educational technology initiatives.
- Decision-making as inquiry: Real-time information is linked to the decision-making structure. Evaluation is not treated as an event but an inquiry process embedded in the educational technology planning process.
- Selecting appropriate variables and tracking relevant indicators pose serious challenges. While there is considerable pressure to judge the effectiveness of technology using student performance data, there is a concern with using one measure to judge effectiveness, particularly student performance as assessed by current measures.

  The SMS must use multiple indicators and measures in order to enhance the validity and reliability of such judgments.

The district will consider using more holistic, qualitative data in the form of rich descriptions of what is happening in classrooms with respect to technology-embedded learning opportunities. In

many cases technology's real impact may be in areas that are not under the analytic spotlight. It will take a systemic approach to illuminate the issues and their interconnectedness. A system that collects rich/thick description may be more appropriate and is a task that teachers and principals may be able to perform most effectively. The challenge is to create simple systems for teachers that enable them to collect useful data on instructional practices that serve as measures of high learning performance.

With such a system in place, the district will be more precise in addressing questions about the broad impact of education technology investments, as well as on more specific questions regarding specific outcomes. The district seeks rich description as well as quantitative data on a diverse set of variables, most often focused where the real impact may be–on the nature of the learning process itself.

Table 2-2 illustrates ways the district might design an outcome-focused evaluation for a specific technology objective.

Indicators for Technology Objective 2.1 Develop and deliver standards-based staff development.

Indicators	***Data Sources***	***Measures***	***Data Collection***
# / % of teachers, by school, implementing selected technology-supported instructional practices Internet	Teachers completing staff development	Teacher self-assessment checklist	District provides online tools for ongoing data collection

Reporting Program Outcomes to Stakeholders

Successful technology program evaluation is dependent upon continuous consideration of how the study output will support decision making in BCPS. Likewise, the success of any project is linked to the success in communicating effectively its intent, processes, implementation phases and approaches, and outcomes to all stakeholders.

Reporting Procedures

The results of an evaluation provide evidence for informed decision making. However, collecting evaluation information has limited utility unless we can communicate it effectively to decision makers and stakeholders so that they can act on the knowledge. In order to maximize the impact of evaluation results, the following reporting procedures will be considered:

- The presentation of results is tailored to meet the needs of the intended audience.
- The evaluation data is made available to appropriate stakeholders and delivered to meet decision-making timetables.
- Evaluation studies are designed and conducted to meet the critical interests of stakeholders
- Strategies for both the dissemination and utilization of key findings are specified during the planning stage of the evaluation.
- Studies of the degree to which the results are utilized. This information becomes input to future planning efforts.

Communicating Processes

The dissemination of evaluation data to all those who need to know can be quite challenging. A different approach is proposed that redefines the task as one of accountability rather than dissemination; that is, the district could assign data collection on benchmarks and indicators to those units or staff accountable for accomplishing the objectives related to those indicators. When specific staff members are accountable for certain outcomes, they will have a built-in self-interest in the scope and quality of the data they require. If this alignment of need and use is not established, communication becomes a problem of dissemination.

9.1

A description of the process for the ongoing evaluation of how technologies acquired are

- Being integrated into the school curriculum; and
- Are affecting student achievement and progress toward meeting the educational goals of the Sunshine State Standards.

IMPLEMENTATION APPROACHES AND ACTION PLANS

The implementation approaches included in this section incorporate the following factors:

- the district's strategic and technology goals
- findings and recommendations from the fall needs analysis report
- current status of projects currently on-going in BCPS
- high priority areas as identified by BCPS staff
- the current status of Florida legislative efforts

The Action Plans that follow provide specific steps for implementing the major initiatives developed in this *Information Technology Blueprint* section. For each initiative, district strategic and technology goals addressed and primary leadership responsibility for implementation are identified.

Staging and phasing of implementation steps is displayed over three years. Some initiatives will continue beyond this three-year timeframe. The staging/phasing matrix indicates the year and quarter in which each activity is planned to begin and end. All initiatives will have defined and approved scopes of work that include measurable objectives as well as detailed workplans that describe the task, phase of the Sterling Process (Plan, Do, Study, Act), and timelines for accomplishing the work. At a minimum, project managers will report the status of the project against its objectives.

An “X” denotes the start of an activity. Activities that are already in process are marked with an asterisk (*). Note that changing budgetary conditions may accelerate or impede the implementation schedule. For activities that span more than one quarter or several years, an arrow is used. Iterative activities will be designated by an “X” in the quarter (or quarters with an arrow) per year.

The Action Plans will be useful to BCPS in determining an annual work plan for implementation activities and for anticipating the resources and budgetary support needed from year to year

Plan Monitoring and Evaluation

M&E-1: Strategic Management System

Design, develop, and implement a strategic management system (SMS) that includes processes, structures, and tools for monitoring implementation of the *Information Technology Blueprint* and evaluating the impact on learning outcomes. This system will track schedules, resource allocations, and fidelity to required program components

M&E-1: STRATEGIC MANAGEMENT SYSTEM													
Strategic Planning Objectives: All		**Technology Objectives:** All			**Leadership Responsibility:** Associate Superintendent, Research, Evaluation, Assessment & Boundaries; Assistant Superintendent, Communications, Strategic Planning, and Community Relations								
Action Step *Denotes that step has already started.		**Year 1 (04-05)**				**Year 2 (05-06)**				**Year 3 (06-07)**			
		Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
1.	Establish monitoring and evaluation program: • Determine evaluation needs for each program component • Determine accountability needs at all levels • Identify performance variables by program component • Identify performance objectives • Conduct evaluation research • Determine evaluator specifications	X →											

M&E-1: STRATEGIC MANAGEMENT SYSTEM

Strategic Planning Objectives: All	**Technology Objectives:** All	**Leadership Responsibility:** Associate Superintendent, Research, Evaluation, Assessment & Boundaries; Assistant Superintendent, Communications, Strategic Planning, and Community Relations

	Action Step *Denotes that step has already started.	Year 1 (04-05)				Year 2 (05-06)				Year 3 (06-07)			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.	Design formative evaluation program: • Design formative evaluation measures and procedures • Establish system for communication of formative findings • Establish system for on-going program modification	X →											
3.	Design summative evaluation program: • Determine short-term objectives • Determine long-term objectives • Match performance objectives to components • Identify data collection methods by component • Design data collection procedures • Identify evaluation audiences • Determine reporting requirements by audience		X →										
4.	Implement formative evaluation program: • Apply measures and procedures • Communicate findings • Determine program modification needs				X →								

M&E-1: STRATEGIC MANAGEMENT SYSTEM

Strategic Planning Objectives: All	**Technology Objectives:** All	**Leadership Responsibility:** Associate Superintendent, Research, Evaluation, Assessment & Boundaries; Assistant Superintendent, Communications, Strategic Planning, and Community Relations

	Action Step *Denotes that step has already started.	Year 1 (04-05)				Year 2 (05-06)				Year 3 (06-07)			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	• Implement program changes												
5.	Implement summative evaluation program: • Determine evaluation roles and responsibilities • Select methodologies • Apply measures and procedures • Analyze evaluation data • Determine findings • Prepare evaluation documents for multiple audiences • Present/communicate findings • Recommend program modifications • Determine program management action • Revise IT Blueprint components • Determine program management action • Revise IT Blueprint components								X →	→	→	→	→
6.	Report program outcomes to BCPS stakeholders • Establish communications program • Select team			X →	→	→	→	→	→	→	→	→	→

M&E-1: STRATEGIC MANAGEMENT SYSTEM

Strategic Planning Objectives: All	**Technology Objectives:** All	**Leadership Responsibility:** Associate Superintendent, Research, Evaluation, Assessment & Boundaries; Assistant Superintendent, Communications, Strategic Planning, and Community Relations

Action Step *Denotes that step has already started.	Year 1 (04-05)				Year 2 (05-06)				Year 3 (06-07)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
• Determine reporting requirements by audience • Develop communications strategy • Communicate and disseminate findings • Study the degree to which the results are utilized • Use this information as input to the future plan												

Key Participants:

	School Board		Curriculum & Instruction		Purchasing & Contracts		Food Services
	Superintendent		Student Support Services		Auditing/Risk Management		Transportation Services
X	District-level Administrators	X	Research, Evaluation, & Assessment		Budget, Finance, & Payroll		Legal Services
X	Area Superintendents		Human Resources		Security and Safety		Community/Business Relations
	School Principals	X	Strategic Planning & Reporting		Fixed Asset Management		Unions/Associations
	Teachers		Staff Development	X	Information Technology/ETS		State & Fed Gov't Relations
	Students		Parents/Guardians/Community		Facilities & Maintenance Svs		Foundations/Grants

Implementation Process

M&E-3: Establish a Project Management Office

This initiative will establish a project management office to align all implementation initiatives to the Sterling model of Plan, Do, Study, and Act. The project management office will oversee the implementation projects to assure that project plans use performance measures that include customer satisfaction, and most importantly, student achievement. Implement a centralized office for the coordination, monitoring, and control of all district initiatives to contribute to the successful completion of BCPS projects and provide a holistic understanding of project issues and dependencies.

M&E-3: ESTABLISH A PROJECT MANAGEMENT OFFICE															
Strategic Planning Objectives: 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2			**Technology Objectives:** 1.4, 1.6, 2.1, 2.2, 3.2, 4.2, 4.3				**Leadership Responsibility:** Chief Information Officer								
Action Step *Denotes that step has already started.			**Year 1 (04-05)**				**Year 2 (05-06)**				**Year 3 (06-07)**				
			Q1	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
1.	Establish project management office		X											
2.	Develop project planning guidelines		X →			X →				X →				
3.	Review draft project plans to assure alignment to Sterling model			X →				→			X →			
4.	Provide consolidated progress reporting			X →				→		→				
5.	Monitor progress against work plans				X →			→		→		→		

M&E-3: ESTABLISH A PROJECT MANAGEMENT OFFICE

Strategic Planning Objectives:	2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2	**Technology Objectives:**	1.4, 1.6, 2.1, 2.2, 3.2, 4.2, 4.3	**Leadership Responsibility:**	Chief Information Officer

Action Step	Year 1 (04-05)				Year 2 (05-06)				Year 3 (06-07)			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
*Denotes that step has already started.												

Key Participants:

	School Board		Curriculum & Instruction	X	Purchasing & Contracts		Food Services
	Superintendent		Student Support Services	X	Auditing/Risk Management		Transportation Services
X	District-level Administrators	X	Research, Evaluation, & Assessment	X	Budget, Finance, & Payroll		Legal Services
	Area Superintendents		Human Resources		Security and Safety		Community/Business Relations
	School Principals	X	Strategic Planning & Reporting		Fixed Asset Management		Unions/Associations
	Teachers		Staff Development	X	Information Technology/ETS		State & Fed Gov't Relations
	Students		Parents/Guardians/Community	X	Facilities & Maintenance Svs		Foundations/Grants

3.0 CRITICAL SUCCESS FACTORS

The overarching critical success factors articulated in *Information Technology Blueprint* Section I impact all initiatives and efforts across the district. These include:

- enlightened leadership
- a critical mass of resources focused on high priority initiatives
- committed, competent, and empowered faculty and staff
- efficient organizational structures and processes
- a culture of continuous improvement

Because the monitoring and evaluation functions relate not only to the technology plan but to all district operations, several critical success factors are identified.

- **Embedded accountability for outcomes at all levels.**

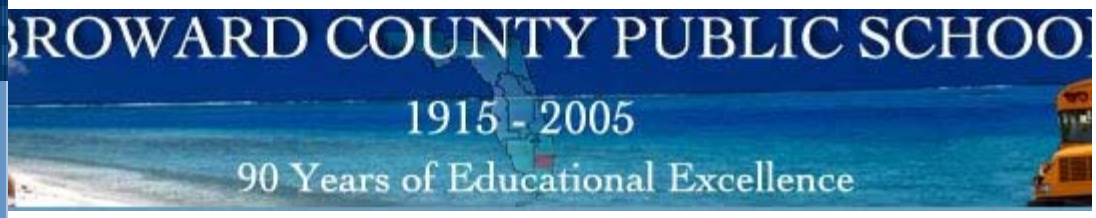
  Embed accountability for outcomes at every level throughout the district. This orientation represents a shift in focus from evaluating the completion of tasks and activities to evaluating whether those tasks and activities actually resulted in the accomplishment of outcomes. An example of such a shift in focus is an increased attention to actually determining whether the participants in staff development activities actually successfully employ the practices addressed in the training.

- **Development and support in monitoring outcomes assessment data.**

  Provide education, training, and support services for decision makers in using implementation monitoring and outcomes assessment data. The district is investing considerable resources in helping administrators, particularly building principals, to use student performance data in guiding district and school improvement initiatives. A commensurate investment is required in helping program managers use implementation data to inform their decisions regarding ongoing adjustments in tasks and activities.

- **Align Strategic Management System of data warehouse.**

  The district has established a data warehouse focused on student performance information. The proposed Strategic Management System must align with the data warehouse and related databases and identify additional data organization requirements.



District Reports

During the course of the school year, various reports on a wide variety of topics are published by the district. E
the most requested reports - this list will change so please visit this page often.

Some reports are in pdf format. Adobe Acrobat Required.



- More reports from the District's Research and Evaluation Division
- More Reports from Student Assessment (Testing) Department
- More reports from the Office of the Chief Auditor
- 20-Day Enrollment Report
- School Enrollment Counts
- Administrative Mentorship Program Evaluation Report, 2004-05 (pdf)
- No Child Left Behind: an Examination of Students Who Transferred Due to NCLB Choice 2004-05 (p
- District Educational Facilities Plan (pdf)
- International Affairs Magnet Evaluation Report, 2004-05 (pdf)
- CCC Status Report (pdf)
- Upper-Level Course Enrollment Prediction Indicators: An Examination of Validity (pdf)
- Communities, Schools, Parents and Students Connecting Through Education Evaluation Report (p
- Two-Way Integration for Native Speakers in English and Spanish (TWINS) Evaluation Report, 2003-
- Communications and Languages Magnet Theme Evaluation Report, 2004-05 (pdf)
- 2005 Florida Comprehensive Assessment Test (FCAT) Results for Grades 4-10 (pdf)
- Annual Status Report on Implementation of the Interlocal Agreement (pdf)
- Title III Student Performance Report, Part II: Recent Immigrant Student Academic Performance 2003
- Title III Student Performance Report, Part I: Analyses of LEP Student Academic Performance 2003-
- Lucent Learning Communities Professional Development Evaluation Report (pdf)
- Broward County Public Schools Brochure (Student Characteristics/Achievement) (pdf)
- Districtwide Summary of Incidents: 2000-01 through 2003-04 (pdf)
- Preliminary CCC Settlement Agreement Status Report (pdf)
- Broward Distance Learning Program (pdf)
- Accelerated Literacy Learning Program Evaluation Report (pdf)
- Promotion and Retention Rates for Elementary Schools in Broward County Public Schools, 2003-04
- Impact of Changing School Year Start Date on Enrollment and Attendance for the 2004-05 School Y

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- **Project Bilingual/ESOL Special Training (Best) Evaluation Report, 2003-04 (pdf)**
- **Promotion and Retention Rates for Secondary Schools in Broward County Public Schools, 2003-04**
- **2003-2004 Educational Equity Act Plan (pdf)**
- **2004 FCAT SSS Scoring Results (pdf)**
- **Broward Teacher Corps Status Report (pdf)**
- **2004 FCAT Writing and NRT Assessment Results (pdf)**
- **Project Bilingual ESOL Special Training (BEST) Evaluation Report (pdf)**
- **Student Absences in Broward County Public Schools (pdf)**
- **Superintendent's Evaluation 2002/03 (pdf)**
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THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
OFFICE OF THE SUPERINTENDENT

DR. FRANK TILL
SUPERINTENDENT OF SCHOOLS

Telephone: (754) 321-2600 **Facsimile: (754) 321-2701**

Approved memorandum with signatures is on file.

February 4, 2005

TO: School Board Members

FROM: Katherine Blasik, Ph.D., Associate Superintendent
Research, Evaluation, Assessment & Boundaries

VIA: Frank Till
Superintendent of Schools

SUBJECT: **BROWARD DISTANCE LEARNING PROGRAM EVALUATION REPORT**

The Broward Educational Communication Network (BECON) offers videoconferencing and online courses as additional classroom options for Broward's students, teachers and staff. Videoconferencing is a series of courses for credit and educational enhancement activities held through two-way interactive video. Broward Virtual Education (BVEd), a franchise of the Florida Virtual School, offers online courses for credit through the Internet for middle and high school students. The attached report highlights patterns of implementation, funding implications, the practices of other distance learning programs, and examines the impact of distance learning on student achievement, academic progress, access, and teacher professional development.

Overall, findings reveal that students participating in distance learning course options demonstrate an equivalent amount of growth as students participating in traditional classroom education, which reinforces the idea that distance learning does not by itself impact student achievement. However, select populations of Broward County students taking online courses moved up at least one FCAT (Florida Comprehensive Assessment Test) Achievement Level in reading and mathematics in greater proportions than did traditional students. Students taking online courses had a tendency to earn more credits than traditional students, which suggests that participation in BVEd has a positive effect on student academic progress. While online courses provide additional alternatives and improve student access to coursework, the distribution of BVEd student grades suggests that there are perhaps two types of students taking online courses in Broward County Public Schools: those for whom online coursework is motivating, and those who experience difficulties with the increased self-motivational demands of online coursework.

To address the findings of this study, a recommendation is made to identify indicators of student success in distance learning course options to improve the process for counseling prospective

BVEd students, which potentially will positively impact student grades and raise the achievement of distance learning participants. Recommendations are also made to continue co-developing online courses with the Florida Virtual School to meet the growing demand for online courses in Broward County, and instituting mechanisms to effectively track student and staff participation in distance learning course options. If you have any questions or comments regarding this report, **please contact me at (754) 321-2470 or Dr. Cary Sutton, Director, Research Services at (754) 321-2500**. This report may also be accessed via the Research Services website at http://www.broward.k12.fl.us/research_evaluation/newmain.htm.

FT/KAB/COS:dwv
Attachment

cc: Senior Management
Area Directors
Principals

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

James F. Notter
Deputy Superintendent, Chief of Staff

Telephone: 754-321-2100 Facsimile: 754-321-2702

January 25, 2005

TO: Dr. Frank Till
Superintendent of Schools

FROM: Mr. James F. Notter, ~~Deputy~~ Superintendent, Chief of Staff

Dr. Nancy G. Terrel, Assistant Superintendent
Communications, Continuous Quality Improvement and Community Involvement

SUBJECT: **RESPONSE TO THE BROWARD DISTANCE LEARNING EVALUATION REPORT**

Recommendation 1. BECON's Distance Learning Director should continue pursuing the co-development of online courses with FLVS in 2004-05 to establish the BVEd program as a full partner in the provision of online educational opportunities for the students of Broward County. The Distance Learning Director should establish a promotional plan to publicize the availability of BVEd online opportunities to teachers, students and parents. Additionally, efforts should be made to measure, and given budget restraints, provide for the necessary resources so that demand for online courses does not significantly exceed course availability and create frustration for students and parents.

Response. BECON's Distance Learning Director has assigned two of the BVEd teachers to work with FLVS in the areas of Reading and English Education to co-develop new and improve current courses. BECON's Distance Learning Director is working with the Principal and staff of Broward Virtual Education to publicize the virtual school. BVEd brochures are currently being printed for distribution. BECON's Distance Learning Director has constructed a request for Legislative changes that, if passed, will provide additional FTE for courses taken beyond the 25-hour student week. The BECON Distance Learning Director has also mobilized the 6 other In-State Franchise of FLVS to do the same. The bill has a sponsor in the Senate and in the House. If passed, the current limitations experienced by BVEd due to funding should be lessened.

Recommendation 2. The BVEd program is funded for each course that a student completes and passes. BVEd students tend to receive more F's than students taking traditional courses which results in significantly lower passing rates for BVEd students. Therefore, the Distance Learning Director should ensure that future research is conducted that seeks to determine whether there are identifiable indicators of student

success or lack thereof that will be useful in providing guidance for the student counseling process of potential BVEd students.

Response. The number of F's recorded in 2003-04 is disproportionately large because many students were reported as failing when they should have been withdrawn. For the 2004-05 School Year, BECON's Distance Learning Director has ensured that teachers clearly understand the grade coding protocol. The BECON Distance Learning Director conducted research in the area of predicted success in an online learning environment. The BECON Distance Learning Director and the BVEd Guidance Counselor now require all prospective full time students to meet with the Guidance Counselor at BECON for accurate information about the rigor of online learning and the characteristics that are indicators of student success in a virtual learning environment. In addition, prospective students take the TABE, an assessment that determines, among other things, the student's reading level, one of the important skills necessary to learn online. Another outcome of this counseling is the enlistment of strong parental support, without which, student success is minimized. BECON has developed a CD that uses current students and their parents to explain the rigor and discipline of an online course. This CD will be mass-produced and distributed to all district high schools for use in counseling part time virtual students and their parents.

Recommendation 3. by February 28, 2005, BECON's Distance Learning Director will ensure that mechanisms are in place for accurately determining student and teacher participation levels in BVEd, videoconferencing, and other distance learning initiatives. Specifically, the Distance Learning Director will:

- Ensure that BVEd courses and participants are accurately recorded in the district's Data Warehouse. The Distance Learning Director shall work with Core Curriculum staff to effectively communicate standards across the district, and ETS staff to ensure that incorrect course numbers cannot be assigned/entered for BVEd or non-BVEd courses.
- Develop and implement a BECON or Data Warehouse tracking mechanism for students, teachers, and district staff participating in videoconferencing programs across the district. Procedures for documenting videoconferencing participation levels for programs not offered through BECON (i.e., school to school) should be developed and implemented.

Response. BVEd is a franchise of Florida Virtual School and the student information and grades are maintained on the FLVS server. BVEd credit reports are stored in whole credit units. Students who are taking full credit courses are not recorded in this database until the entire credit is earned and recorded as one full credit. The FLVS system does not distinguish between a student who takes one half of a credit and a student who takes a full credit. FLVS recognizes that this policy must be revised and has developed a new system that will maintain half credit completions, but if will not be available to the franchises until Spring of the 2004-05 School Year, at the earliest. The BVEd Data Processing Clerk works diligently to maintain accurate records of completions. BVEd does not have a clear understanding of why there are discrepancies

in the Data Warehouse records of completions, but will continue to pursue this situation. BECON's Distance Director requests an extension to the February 28, 2005 deadline due to the impossibility of getting accurate statistics until the FLVS server is updated with the new Student Management System. It is also suggested that the District attempt to develop a program that will "talk" to both TERMS and FLVS' SIMS to maintain accurate data.

BECON and ETS have devised a strategy that will be implemented with the inception of a planned new videobridge. Participation in multipoint videoconferences will be easily recorded through this mechanism. In addition, the new videoconference equipment that is being installed over the next 90-120 days and the replacement equipment with installation expected throughout 2005-06 will have built-in software that will keep track of all videoconferences initiated by the equipment. This will ensure more accurate recording of individual schools' usage. Because most of the videoconferenced programs are weekly, elementary and middle school FCAT based programs, they would not be recorded in the Data Warehouse.

JFN/NGT/PSS/MABP:ft

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The School Board of Broward County, Florida

Broward Distance Learning Program Evaluation Report

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February 2005

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Broward Distance Learning Program

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The School Board of Broward County, Florida

Broward Distance Learning Program
Evaluation Report

Executive Summary

Broward County Public Schools defines distance learning as "an option different from the traditional classroom" which "takes place when space, time or both separate the teacher and the learner" (The School Board of Broward County, Florida, 2003). Broward County Public Schools (BCPS) have implemented distance learning opportunities for students via two primary methodologies. The first method is a series of courses for credit and educational enhancement (e.g., Florida Comprehensive Assessment Test Reading and Mathematics) activities held through two-way interactive video or videoconferencing, whereby a teacher in one location can see, be seen, and interact with students in one or more remote locations in real time.

The second method is online courses such as those provided by the Florida Virtual School (FLVS), which offers courses for credit in high school and middle school for courses taken through the Internet. Broward Virtual Education (BVEd) is a franchise of the FLVS and offers courses taught by BCPS teachers in the same manner as FLVS. Distance learning methodologies are also used to support the professional development of instructional and administrative staff across the district.

Purpose of the Evaluation

This evaluation study examined the policies and impact of distance learning on student academic progress. The study also examined teacher perceptions regarding the value of distance learning methodologies for professional development. The following research questions were addressed in this evaluation report:

1. How is distance learning being implemented in BCPS and what are the demographic characteristics of participating students? What are the funding implications?
2. What are the current practices and their perceived effectiveness of the other major school districts in Florida in implementing and funding distance learning programs?
3. What is the impact of distance learning on student test scores and progress? Does the program increase student access to important coursework?
4. What is the impact of distance learning on student grades and passing rates?
5. What is the impact of distance learning on teacher professional development?

Summary and Conclusions

The results of this evaluation effort reinforce the findings of the previous evaluation and in the literature that distance learning methodologies do not, by themselves, affect students' achievement. Overall, the achievement gains of students participating in online courses was found to be no different (after adjusting for demographic differences) than the gains experienced by students engaged in traditional classroom education.

Students participating in online coursework demonstrated an equivalent amount of growth in both reading and mathematics on the Florida Comprehensive Achievement Test (FCAT) at the ninth and tenth grade levels for both the 2002-03 and 2003-04 school years. There were isolated indications that BVEd students achieved more as indicated by the fact that tenth grade BVEd students moved up at least one FCAT Achievement Level in greater proportions in reading during the 2002-03 school year than did traditional students and ninth grade BVEd students moved up at least one Achievement Level in greater proportions in mathematics during the 2003-04 school year than did traditional students.

There was a tendency for students in online courses to receive more A's and F's than students in traditional courses. This increased number of F's resulted in the finding that the overall passing rate in online courses was significantly lower than in traditional courses. These observations tend to suggest that there are perhaps two types of students taking these courses: those for whom online coursework is motivating, and those who experience difficulties with the increased self-motivational demands of online coursework.

Students taking online courses tend to earn more credits during the year. This indicates that participation in BVEd has a positive effect on student academic progress. Taken together with the observations of the FLVS and BCPS staff that online courses provide an alternative for students with availability, scheduling, or other problems with taking traditional coursework, we can conclude that online courses improve student access to coursework which they consider important.

Distance learning methodologies were perceived by teachers who participated to be effective, and reported that they were not hindered by the differences in the amount of interaction and communication with the instructor or other teachers. Distance learning opportunities were considered desirable by a majority of teachers who participated.

Recommendations

1. BECON's Distance Learning Director should continue pursuing the co-development of online courses with FLVS in 2004-05 to establish the BVEd program as a full partner in the provision of online educational opportunities for the students of Broward County. The Distance Learning Director should establish a promotional plan to publicize the availability of BVEd online opportunities to teachers, students and parents. Additionally, efforts should be made to measure, and given budget restraints, provide for the necessary resources so that demand for online courses does not significantly exceed course availability and create frustration for students and parents.

2. The BVEd program is funded for each course that a student completes and passes. BVEd students tend to receive more F's than students taking traditional courses which results in significantly lower passing rates for BVEd students. Therefore, the Distance Learning Director should ensure that future research is conducted that seeks to determine whether there

are identifiable indicators of student success or lack thereof that will be useful in providing guidance for the student counseling process of potential BVEd students.

3. By February 28, 2005, BECON's Distance Learning Director will ensure that mechanisms are in place for accurately determining student and teacher participation levels in BVEd, videoconferencing, and other distance learning initiatives. Specifically, the Distance Learning Director will:
   - Ensure that BVEd courses and participants are accurately recorded in the district's Data Warehouse. The Distance Learning Director shall work with Core Curriculum staff to effectively communicate standards across the district, and ETS staff to ensure that incorrect course numbers cannot be assigned/entered for BVEd or non-BVEd courses.
   - Develop and implement a BECON or Data Warehouse tracking mechanism for students, teachers, and district staff participating in videoconferencing programs across the district. Procedures for documenting videoconferencing participation levels for programs not offered through BECON (i.e., school to school) should be developed and implemented.

The School Board of Broward County, Florida

Broward Distance Learning Program
Evaluation Report

Introduction

Broward County Public Schools defines distance learning as "an option different from the traditional classroom" which "takes place when space, time or both separate the teacher and the learner" (The School Board of Broward County, Florida, 2003). Broward County Public Schools (BCPS) have implemented distance learning opportunities for students via two primary methodologies. The first method is a series of courses for credit and educational enhancement (e.g., Florida Comprehensive Assessment Test in Reading and Mathematics) activities held through two-way interactive video or videoconferencing, whereby a teacher in one location can see, be seen, and interact with students in one or more remote locations in real time. For example, a teacher at one high school can teach an Advanced Placement course to students in his/her own classroom, and through two-way video technology, also teach and interact with students at remote locations (e.g., at another high school).

The second method is online courses such as those provided by the Florida Virtual School (FLVS), which offers courses for credit in high school and middle school for courses taken through the Internet. Broward Virtual Education (BVEd) is a franchise of the FLVS and offers courses taught by BCPS teachers in the same manner as FLVS. Distance learning methodologies are also used to support the professional development of instructional and administrative staff across the district.

A previous evaluation (Younkin, 1998) looked at the impact of the distance learning initiatives then in use (primarily two-way interactive video) and concluded "distance learning methodologies contribute additional means of providing learning opportunities without negatively effecting student achievement." This evaluation effort focused on the impact of online coursework (Broward Virtual Education) and the use of distance learning for teacher professional development.

Literature Review

Distance learning has been found to be an effective delivery method. Hawkes (1996), in reflecting on the evaluation literature regarding distance learning states, "From this body of evaluation literature, three findings have consistently substantiated Whittington's (1987) original summary of the outcomes of distance learning:

1. Students taking courses via instructional television achieve as well as students taking courses via traditional methods.
2. Classroom achievement for students learning through interactive distance modes is equivalent to achievement of students in traditional classrooms.
3. Distance learning technologies as devices for communicating instruction has no intrinsic effect on student achievement."

Glaser (1993), in discussing the educational rationale for distance learning, believes that this new technology provides a methodology to meet all of the needs of our students. We can address the issues surrounding students' traveling to other locations (schools, colleges and universities) to obtain educational experiences by bringing the experiences to them in their home and/or home school setting. Distance learning, according to her, provides an opportunity to appropriately address the issues of equity and access, the quality of educational programs, and the need for technological literacy and global awareness. Cavanaugh (1999), in her meta-analysis of 19 studies involving 929 students found a small positive mean effect size on student achievement in favor of distance learning that was not statistically significant.

The development of virtual schools based on the Internet has been a relatively recent and fast growing development in the provision of distance learning opportunities in the K-12 sector. According to Clark (2001), "The virtual school movement can be considered the next wave in technology based K-12 education, joining proven distance learning delivery methods." His study of virtual schools in the United States found that the trend from "virtual high schools to virtual K-12 schools continues." Clark (2001), along with Winograd (2002), identifies the Florida Virtual High School (now the Florida Virtual School – following the previously mentioned trend), as one of the innovators in the online education movement in K-12 education. As of 2001, a total of 14 states had a planned or operational state-sanctioned, state-level virtual school in place (Clark, 2001).

A study of virtual education programs undertaken by the State of California (Freedman, Darrow, & Watson, 2002) identifies Florida as one of the states with programs that are "maturing into an integrated part of education in each of these states" and concludes, in part, "virtual education will continue to grow, despite funding issues."

An evaluation of the FLVS by Bigbie and McCarroll (2001) found, in part, that:

- Ninety-three percent of district contacts indicated that FLVS benefits their district.
- District-level administrators provided evidence that FLVS was providing a great need, especially regarding provision of Honors and Advanced Placement courses as well as flexible options for students.
- Twenty-eight percent of parents rated their child's FLVS experience as "great," and half of the respondents said their child's FLVS experience was "good;" only seven percent rated their child's experience as "poor."
- Many of the parents that were unsatisfied with their child's FLVS experience, attributed the lack of success to slow download times, students' lack of time management skills, and overly time-consuming assignments.
- Eighty-one percent of FLVS parents would encourage their child to participate in other FLVS courses and 91 percent of parents would recommend FLVS to others.
- Most students indicated that FLVS courses were more difficult than regular high school courses.
- The online environment may not be for all learners, but it filled a niche and should continue to provide services to students across Florida.

Bigbie and McCarroll (2001) further concluded, “Under scrutiny invited by the school faculty and administration, the curriculum at FLVS has met or exceeded standards that we always expect but don’t always demand in the traditional classroom.” Perhaps due to the newness of online distance learning, the published literature does not contain any significant studies of the relative effectiveness of online coursework in promoting student achievement as compared to traditional coursework.

Program Description

Distance learning in BCPS consists of two major components, videoconferencing programs and Broward Virtual Education (BVEd). Videoconferencing allows simultaneous participation by students at separate locations via two-way audio and video technology. BCPS has over 150 locations receiving daily academic and special programs at all grade levels. The school system has set a goal of having at least one unit in every school within five years. Through videoconferencing technology students are engaged in classroom instruction, take field trips outside of Broward County, participate in events and special programs, and creatively learn about other countries. Learning is done in "real time" in which the student and host interact face-to-face. These interactive opportunities for learning are distinct from the Instructional Television (and videotape) programs, which are fixed, one-way presentations that do not contain an interactive component.

Regularly scheduled videoconferencing on the elementary level is used for classroom supplemental programs such as Reading Rascals, Mr. G’s Math Marvels, Science Explorers, etc. At the middle school level a yearlong class is offered once a week in mathematics, and a weekly enrichment program based on Florida’s Sunshine State Standards is offered in reading, writing and poetry. At the high school level, courses are offered to multiple sites where teaching and/or other resources are not available (e.g., Advanced Placement or other specialized courses).

Supplemental videoconferencing opportunities are provided for all school levels for students to take virtual field trips, participate in events or other special programs, and to creatively learn about foreign countries. Examples of these activities include *Indiana Zoo: Shark Dive*, *NASA Exploration of Space*, *Holidays in Japan* and *America and Storyteller, Roger Neal*.

Videoconferencing is also used for staff development to allow staff to assemble at sites throughout the district and participate in staff development programs through two-way interactive videoconferencing. This way, more people can attend with less travel time and distance than in the traditional professional development modality. Videoconferencing technology is also offered for district staff to conduct meetings or other administrative functions throughout the district.

Through Broward Virtual Education (BVEd) students have the opportunity to take courses for high school credit taught online by BCPS teachers. BVEd has franchised the program for online learning from the Florida Virtual School (FLVS), which was established by the Florida Legislature to provide online learning opportunities for all students in Florida. All courses are based on Sunshine State Standards and their rigorous curricula are directly linked to benchmarks

established by the Florida Department of Education. BVEd is a fully accredited high school through the Commission on International and Transregional Accreditation-Southern Association of Colleges and Schools (CITA-SACS).

BVEd offers regular, honors level, and Advanced Placement courses and is expanding its course offerings and availability as demand dictates. Students learn at their own pace at school, at home, wherever they are, whenever they choose. Students may remain at their current schools and take courses as part-time BVEd students or may apply to be full-time virtual students in BVEd.

BVEd students use the Internet to participate in a learning experience different from the traditional school classroom. This alternative learning mode provides access to students who are hospitalized or homebound for an extended period of time, teen parents, students away from their schools for various reasons, or students who want to accelerate their academic progress or make up credits. Students are not limited to course offerings based on their chronological age or grade level. Readiness and competence determines course placement. Course approval by the students' school guidance counselor is required for participation in BVEd courses.

Cost Impact

In 2003-04, BVEd was funded primarily through Full-Time Equivalent (FTE) generation for student participation in BVEd courses with additional funds ($300,000) received through a Florida Challenge Grant. As shown in Table 1, expenditures for 2003-04 totaled $890,112 and included expenses for salaries/benefits of support staff (e.g., instructional staff, data processor, guidance counselor, program monitor), purchased services (e.g., FLVS franchise fees, virtual seat costs, communication expenses), instructional materials and supplies, computer hardware and software, and miscellaneous expenses. BVEd incurs no traditional school expenses related to transportation, utilities, cafeteria or media center costs, maintenance (classroom furniture, carpeting, painting, etc.), or support staff (custodial, security, or assistant principals).

Table 1
2003-04 BVEd Expenditures

	Expenditures
Salaries/benefits	$656,296
Purchased services	$151,317
Instructional materials and supplies	$73,234
Computer hardware and software	$8,221
Miscellaneous	$1,044
Total	$890,112

Based on the FTE instructional allocation from district high schools for students participating in BVEd courses and other funding sources, BVEd program expenditures exceeded total district allotments by $94,107 for 2003-04. However, the district FTE allocation is based on anticipated BVEd course enrollment for the year. The actual student FTE count for 2003-04 will be determined upon receipt of final state FTE reports.

Videoconferencing was funded in part through the budget of the Distance Learning department with estimated expenditures of $571,401 for 2003-04. Expenditures included salaries/benefits of support staff ($431,323), videoconferencing and computer equipment ($97,774), purchased services ($25,119), and materials and supplies ($17,185). Videoconferencing also received funds from the Florida Department of Education Dirkson Grant for Social Studies ($10,000) and was supported by Title 4 for one-half of the salary and benefits of a teacher and secretary in 2003-04.

Purpose of the Evaluation

The evaluation study described herein examined the policies and impact of distance learning on student academic progress. The study also examined teacher perceptions regarding the value of distance learning methodologies for professional development. The following research questions were addressed in this evaluation report:

1. How is distance learning being implemented in BCPS and what are the demographic characteristics of participating students? What are the funding implications?
2. What are the current practices and their perceived effectiveness of the other major school districts in Florida in implementing and funding distance learning programs?
3. What is the impact of distance learning on student test scores and progress? Does the program increase student access to important coursework?
4. What is the impact of distance learning on student grades and passing rates?
5. What is the impact of distance learning on teacher professional development?

Methods

This evaluation study has been designed as a combination of a non-equivalent control group design and a case study. The control group design was used to examine the impact of participating in online coursework on student academic progress. The case study approach was used to examine the policies and experiences of BCPS and other counties across the state. The case study approach was also used to examine the value of distance learning methodologies for professional development.

A combination of approaches was used to collect data to answer the questions posed in this report. Interviews were conducted with Broward Education Communication Network (BECON) and school-based staff to obtain background information. Telephone interviews and web-based surveys were conducted with FLVS personnel and distance learning leaders in the four leading Florida counties to utilize online coursework. Surveys were administered to 24 teachers who participated in online professional development activities provided by BECON. Fifteen teachers returned completed surveys resulting in a 62.5% return rate.

A data set was developed and analyzed that included demographic, test score and online course participation data for students enrolled in BVEd courses and comparison group students for the 2001-02, 2002-03, and 2003-04 school years. Students taking BVEd courses in 2001-02 and 2002-03 were identified by BECON staff members as enrollment in online courses was not

accurately recorded in the district's Data Warehouse for these years. Program participants for the 2003-04 school year were identified in the Data Warehouse with the assistance of BECON staff members to overcome inconsistent recording practices across the district. Another data set was developed containing course records for the 2003-04 academic year for courses taken by BCPS students. The individual courses that were selected for inclusion in this data set were courses that were taken online by at least one student during the year. Therefore, this data set included all courses taken online and a comparison group of the same courses taken in a traditional classroom setting. The course records were matched with the participant records in order to analyze the impact of taking particular BVEd courses on the corresponding developmental scale score (e.g., an Algebra course and the Mathematics score). However, the only course with sufficiently large BVEd enrollment combined with full test score (scores for both 2002-03 and 2003-04) and demographic data was World History.

Results

1. *How is distance learning being implemented in BCPS and what are the demographic characteristics of participating students. What are the funding implications?*

Distance learning in BCPS consists of two major components, videoconferencing programs and BVEd. Implementation, participation and, where available, demographics of the participants, were examined for each distance learning modality.

Videoconferencing

Videoconferencing facilitates the simultaneous instruction of students at two or more locations via two-way audio and video technology. Students experience interactive instruction and may participate in field trips outside of Broward County, as well as in events and special programs held throughout the world. Learning activities are held in "real time" in which the student and host teacher interact face-to-face. In addition to academic applications at all school levels, videoconferencing is used for teacher professional development, and also available to district staff for use as a district communication tool.

BCPS began its experimentation with distance learning technologies in 1988 with the Homework Hotline. Initially started through the Division of Adult and Community Education, the Homework Hotline proved to be a popular implementation of the interactive nature of distance learning as a supplement to classroom instruction with one-way video and two-way audio (return through the phone lines).

In 1996-97, the first academic videoconferencing class was piloted from Broward Community College to students at Taravella High School. This first pilot course resulted in Taravella High School offering a course in 1997-98 to students at Fort Lauderdale High School, who otherwise were unable to take this course at their home school. In 1998-99, videoconferencing technology was used for elementary classroom supplemental programs and three Advanced Placement (AP) videoconferencing courses were offered in 1999-00 from Coral Springs High to Hallandale High

(AP English), Dillard High to Nova High (AP Art History), and Blanche Ely High to Taravella High (AP Environmental Science).

In 2003-04, regularly scheduled videoconferencing at the elementary level was used for classroom supplemental programs. Ten videoconferencing programs for the different elementary grade levels were broadcast multiple times throughout the year. These programs usually involved multiple sites across the district and were either taught or facilitated by a lead instructor located at BECON (Broward Education Communications Network). At the middle school level a yearlong class was offered once a week in mathematics (Middle School Math With Mrs. T), and a weekly enrichment program based on Florida's Sunshine State Standards was offered in reading (Reading is a Mind Game) and writing (Writing With a Middle School Flair). These courses were taught by an instructor located at BECON or at a district school and were broadcast to multiple locations across the county. Funding for these activities was provided by the Distance Learning department.

At the high school level, courses were offered to multiple sites where teaching and/or other resources were not available (e.g., Advanced Placement or other specialized courses). These courses usually involved an instructor at one school teaching their "local" students and one or more remote classes through videoconferencing technology. This application of videoconferencing technology has been difficult to expand due to the fact that there are seven different bell schedules in place in Broward County high schools. Access to these courses is becoming one of the benefits of the online course offerings of BVEd.

Supplemental videoconferencing opportunities are provided on all levels for students to take virtual field trips, participate in events or other special programs, and to creatively learn about foreign countries. After-school videoconferencing programs that are based on the arts and FCAT skills are also offered to students participating in school aftercare programs. Funding for these supplemental activities is frequently provided by the sponsor through their funding sources and grants. Broward participation and coordination is funded through the Distance Learning budget.

BECON advertises videoconferencing courses to schools and invites interested schools to contact them to determine their videoconferencing needs. BECON provides support to schools when ordering the necessary equipment, trains school staff members to access the available videoconferencing programs, and contacts ETS to provide videoconferencing technical support services (e.g., equipment installation).

BECON has provided in-service training in the use of videoconferencing and online technology for teachers who have been hired to teach through the Distance Learning technologies, and also for other district teachers who have shown an interest in learning these teaching methodologies. The district also offers online staff development courses through the Broward Virtual University, which is offered through the Program Development and Alignment Department.

Videoconferencing technology is also utilized for virtual administrative meetings, by various departments to inform school staff of policy changes, for Curriculum Department meetings with the schools, and in conjunction with Instructional Television to provide urgent information to

schools (e.g., emergencies). Outside educational groups, such as Florida Distance Learning Association meetings, also use the district's videobridge to facilitate their meetings.

Videoconferencing Participation.

Table 2 summarizes participation in the various types of videoconferencing activities for the last four years. Videoconferencing data was provided by BECON. Data may be estimated or incomplete due to instances of when data was not recorded or inaccurately recorded. Some schools provide videoconferencing classes to single locations (not multiple sites like BECON conducts), which are not tracked by BECON. BECON does not currently track the identification numbers of participating students or teachers, therefore, videoconferencing participant demographic data is not available for analysis.

In Table 2, the number of videoconferencing participants (teacher and students) include repeat participants. The number of program sessions and number of participating sites also represents a duplicated count, or in other words, individual videoconferencing programs may be broadcast at multiple times and at multiple sites simultaneously, as demand requires. The number of programs in each category represent an unduplicated count of the videoconferencing programs offered.

The length of videoconferencing sessions varies depending on differences in school schedules at different school levels. For example, elementary videoconferencing sessions typically last 30 minutes, while middle schools sessions last 45 minutes. High school sessions may last up to 90 minutes.

Participation in elementary and middle school videoconferencing programs has risen from 2000-01 to 2003-04. High school programs experienced drops in videoconferencing classes as the BVEd program started in BCPS in 2000-01, thus displacing students from videoconferencing classes to BVEd classes. Videoconferencing programs for all ages has remained level, while district programs experienced dramatic participation increases in 2001-02 and 2002-03, the years in which BECON conducted extensive teacher training for National Board Certification. National Board Certification training was not provided in 2003-04 due to lack of distance learning funding.

Overall, the use of videoconferencing technology in BCPS has increased markedly from 2000-01 to 2003-04. Additionally, by the end of the 2004-05 School Year, 82 additional sets of videoconferencing equipment will be added to the district's distance learning network. This will bring the total number of schools that are able to participate in the two-way, interactive educational programs to almost 200 schools.

Table 2

Summary of Videoconferencing Activities by Year

Event type/measure	2000-01	2001-02	2002-03	2003-04
Elementary school programs				
Number of programs (unduplicated)	12	16	21	12
Number of program sessions	329	605	746	1,080
Number of participating sites	1,329	1,939	3,000	3,349
Number of participating teachers	1,943	2,495	3,168	4,351
Number of participating students	25,355	37,342	47,051	71,779
Middle school programs				
Number of programs (unduplicated)	3	6	2	2
Number of program sessions	125	271	117	184
Number of participating sites	150	648	412	622
Number of participating teachers	208	665	429	682
Number of participating students	2,459	7,044	6,556	5,168
High school programs				
Number of programs (unduplicated)	10	13	5	3
Number of program sessions	1,260	747	540	198
Number of participating sites	2,700	1,546	1,080	396
Number of participating teachers	2,700	1,595	1,080	396
Number of participating students	38,880	14,016	6,930	8,640
Programs for all grades				
Number of programs (unduplicated)	37	63	60	65
Number of program sessions	37	79	71	82
Number of participating sites	218	377	369	378
Number of participating teachers	459	395	390	397
Number of participating students	4,572	4,112	3,258	4,610
District programs				
Number of programs (unduplicated)	8	84	43	7
Number of program sessions	13	147	103	15
Number of participating sites	30	445	395	43
Number of participating teachers	475	5,980	5,485	645
Number of participating students	0	0	0	0
Total				
Number of programs (unduplicated)	70	182	131	89
Number of program sessions	1,764	1,849	1,577	1,559
Number of participating sites	4,427	4,955	5,256	4,788
Number of participating teachers	5,785	11,130	10,552	6,471
Number of participating students	71,266	62,514	63,795	90,197

Note. Videoconferencing participation data was provided by BECON. Data may be estimated or incomplete due to instances of when data was not recorded or inaccurately recorded. The number of program sessions, participating sites, participating teachers, and participating students represent a duplicated count.

Broward Virtual Education

Access for all students to online distance learning opportunities is mandated by The Florida School Code (s. 1002.20 [6a]), which states, in part, that "Parents of public school students may seek whatever public school choice options that are applicable to their students and are available to students in their school districts. These options may include…the Florida Virtual School." The implementation of distance learning opportunities in BCPS is governed by Board Policy 6744 (The School Board of Broward County, Florida, 2003). The relevant provisions of this policy (to this evaluation) are:

- All students academically qualified to take a course may take it through distance leaning and the course will be treated as a traditional course in reference to grading, reporting, credit given, and inclusion on the transcript and grade point average.
- The parent, student and principal (or designee) must confer and agree that distance learning and the course(s) selected are academically and developmentally appropriate for the student.
- A student can drop an online course without penalty within 14 consecutive days of beginning.
- Courses must be based on the Sunshine State Standards and meet the benchmarks.
- There is ongoing registration throughout the calendar year for online courses.
- Should enrollment demand exceed capacity, students will be chosen via a lottery system.
- A student enrolled in BVEd may participate anywhere and anytime a computer with Internet access is available.

At the beginning of the development of the Florida Virtual School (FLVS) in 1996, BCPS determined that this opportunity would be beneficial for its students, and agreed to affiliate with the FLVS in 1998-99, and certified that it would treat credits and grades from the FLVS in the same manner as it treats credit and grades taken in BCPS. During the second year of affiliation, three BCPS teachers taught online classes for FLVS. By 2000-01, the third year of affiliation, there were long waiting lists for BCPS students to get into the virtual classes.

Talks with the FLVS regarding the prospects for providing access to virtual classes for all of the BCPS students that desired to take these courses led to the development of a franchise program by FLVS and the decision by BCPS to open a franchise known as Broward Virtual Education (BVEd). The decision to adopt a franchise program in BCPS was stimulated by the realization that FLVS would not be able to serve the number of BCPS students wanting to take online courses. By opening an FLVS franchise, BVEd would be able to expand the reach of online education to students throughout Broward County and keep the Full-Time Equivalent (FTE) funding generated through their enrollment.

As part of the franchising partnership, FLVS provides training for BCPS teachers who have been selected to become online instructors. Both FLVS and BVEd are interested in pursuing the possibility of co-developing online courses to further meet the needs of BCPS and Florida students. BCPS was the first school district in Florida to develop a franchise program, which involves the teaching of the virtual school courses to students by teachers from BECON or

traditional schools throughout the district. Six other Florida districts have since developed FLVS franchises.

In 2001-02, BCPS began its online course offerings with the ten courses that had the highest enrollment in FLVS. BVEd currently offers every course that FLVS has released (56 courses in 2003-04). FLVS only releases courses to BVEd that it has implemented for a full year and after it has had the opportunity to resolve any problems. FLVS bases its decisions regarding new course development on feedback received from school districts and its own needs assessment. BVEd currently does not develop any courses on its own; however, it is currently pursuing the co-development of online courses with FLVS. There are currently 12 full-time and 20 part-time BCPS instructors teaching online courses through BVEd.

Students interested in taking courses through BVEd obtain approval from their guidance counselor and access the appropriate forms online. When the forms are complete, with the approval of the guidance counselor and parents, they are faxed to the BECON Distance Learning department where the student is enrolled in the online course. The teacher assigned to the course contacts the student by email and telephone to welcome the student and to answer any questions regarding course procedures. The student accesses the course modules through the Internet and has access to the assigned teacher by email and telephone for questions. Students submit their assignments (contained in the learning modules) to the teachers, who subsequently comment on the assignment and return them to the student for improvement. The student works on each assignment until they are satisfied with the comments and grade. Most courses have tests built in (primarily performance based) and the course is completed with a culminating project and/or final exam. The teacher then submits a grade according to the grading rubric associated with the course.

BVEd Participation.

The number of BVEd participants from 2001-02 to 2003-04 is presented in Figure 1. In the first year that online courses were offered to BCPS students, 399 students participated in BVEd online courses. Participation rose 65% to 660 students in 2002-03, and rose 113% to 1,406 students from 2002-03 to 2003-04. Out of the 399 students who took BVEd courses in 2001-02, two took BVEd courses in 2002-03, and 19 took BVEd courses in 2003-04. A total of 62 students participated in BVEd courses in both 2002-03 and 2003-04.

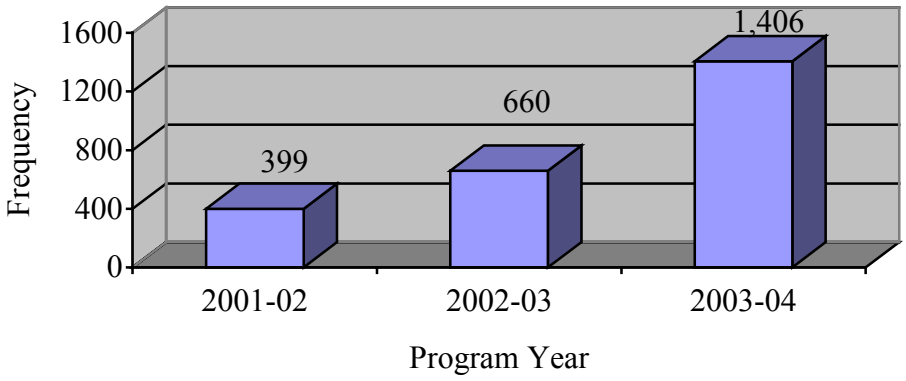


Figure 1. Number of Broward Virtual Education Participants, 2001-02 to 2003-04.

Table 3 summarizes the total course enrollment by subject and year. Course enrollment is presented in 0.5 semester credits to examine course enrollment longitudinally, as 2001-02 and 2002-03 enrollment data were only available for .5 semester credit courses. As a result, enrollment data represents a duplicated count of BVEd participation for courses that were 1.0 credit courses offered over two semesters. For example, a student taking one course such as English I (1.0 credit) must enroll twice (i.e., once in each semester) to complete the course.

In 2001-02, BCPS students registered 558 semester enrollments in BVEd courses. Semester enrollments almost doubled in 2002-03 with 1,108 semester enrollments and rose to 2,385 semester enrollments in 2003-04. A complete breakdown of semester enrollments by course and year may be found in the Appendix.

Table 3
Summary of BVEd Course Semester Enrollments by Year

Subject	2001-02		2002-03		2003-04	
	n	%	*n*	%	*n*	%
English	83	15.0	133	11.9	467	19.7
Mathematics	143	25.6	51	4.6	411	17.3
Social Studies	56	10.0	459	41.6	684	28.7
Science	84	15.2	157	14.2	207	8.7
Computer Technology	1	0.2	8	0.8	153	6.4
Foreign Language	0	0	1	0.1	39	1.6
Other	191	34.3	299	26.9	424	17.9
Total	558	100.0	1,108	100.0	2,385	100.0

Note. All enrollment data for 2001-02 and 2002-03 provided by BECON. A complete breakdown of semester enrollments by course and year may be found in the Appendix.

Table 4 provides the number of BVEd courses offered by subject and year. A total of 26 online courses were offered during 2001-02, the initial year of the program. The number of online courses offered rose to 43 in 2002-03 and to 56 in 2003-04. A complete breakdown of the BVEd courses offered by year may be found in the Appendix. BVEd offers all of the courses developed

by FLVS that have been offered for at least one year. FLVS will not release any course which they have not had at least one year of experience. BVEd is discussing the possibility of co-developing online courses with FLVS to better meet the needs of Broward students.

Table 4
Number of BVEd Courses Offered by Subject and Year

Subject	2001-02		2002-03		2003-04	
	n	%	*n*	%	*n*	%
English	7	26.9	8	18.6	10	17.9
Mathematics	5	19.2	6	14.0	8	14.3
Social Studies	5	19.2	12	27.9	12	21.4
Science	4	15.4	7	16.3	9	16.1
Computer Technology	1	3.9	5	11.6	8	14.3
Foreign Language	0	0.0	1	2.3	3	5.4
Other	4	15.4	4	4.3	6	10.7
Total	26	100.0	43	100.0	56	100.0

Note. All enrollment data for 2001-02 and 2002-03 provided by BECON. A complete breakdown of the BVEd courses offered by year may be found in the Appendix.

Figure 2 presents the number of BVEd courses by course type and year. Standard curriculum courses accounted for the majority of BVEd courses offered each year followed by Honors and Advanced Placement courses.

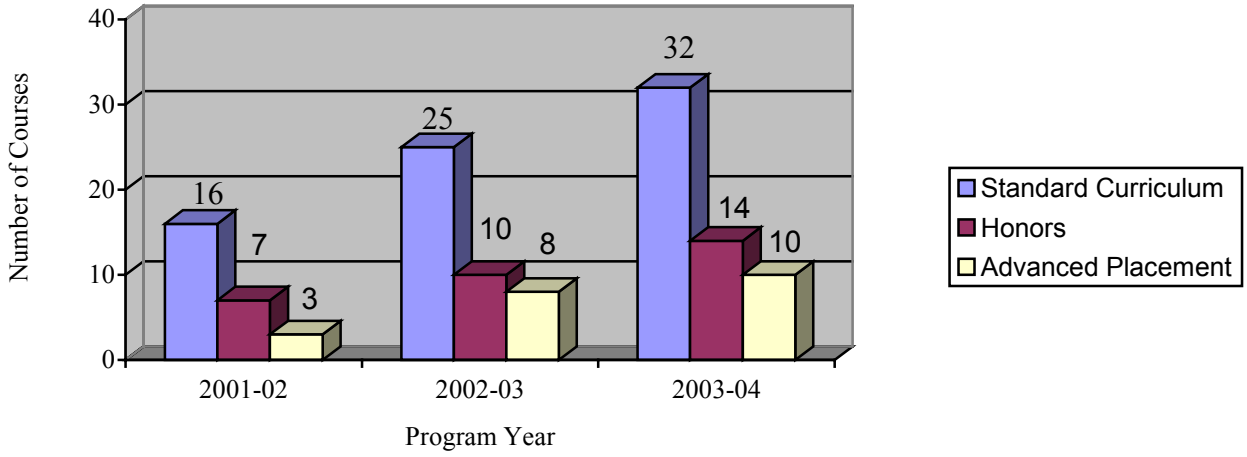


Figure 2. Number of Broward Virtual Education Courses by Course Type, 2001-02 to 2003-04.

Participant demographics.

The demographic characteristics of students who participated in BVEd online courses from 2001-02 through 2003-04 are presented in Tables 5 through 11. Demographics examined included grade level, school level, gender, race/ethnicity, Free and/or Reduced-Price Lunch (FRL) status, Limited English Proficiency (LEP) status, and Exceptional Student Education (ESE) status.

Table 5 presents the number of students who participated in BVEd courses by grade and year. Over the period from 2001-02 to 2003-04, the number of students participating in BVEd courses grew from 394 to 1,400 students. There were few enrollments at the middle school level due to the fact that the courses offered were designed for high school students. Enrollment grew at all high school grade levels, with 12th grade enrollments demonstrating the largest gains from 2001-02 (*n*=83) to 2003-04 (*n*=604).

Table 5
Summary of BVEd Course Participation by Grade

Grade	2001-02		2002-03		2003-04	
	n	*%*	*n*	*%*	*n*	*%*
7	6	1.5	---	---	5	0.4
8	1	0.3	---	---	10	0.7
9	87	22.1	155	23.7	136	9.7
10	107	27.2	154	23.6	365	26.1
11	108	27.4	110	16.8	280	20.0
12	83	21.1	226	34.6	604	43.1
30/31	2	0.5	8	1.2	---	---
Total	394	100.0	653	100.0	1,400	100.0

Note. Data does not include students not identifiable, or those with incomplete data, in the Data Warehouse for 2001-02 (*n*=5), 2002-03 (*n* =7), and 2003-04 (*n*=6).

Table 6 presents the number of students who participated in BVEd courses by school level and year. Middle school gains were limited due to the fact that the courses were designed for high school students. The proportion of students from the centers rose from 7.6 (*n*=30) in 2001-02 to 57.7% (*n*=377) in 2002-03, and then, fell to 17.9% (*n*=250) in 2003-04. All of the school levels increased and a total of 133 students were full-time BVEd students in 2003-04.

Table 6
Summary of BVEd Course Participation by School Level

School level	2001-02		2002-03		2003-04	
	n	*%*	*n*	*%*	*n*	*%*
Middle	6	1.5	0	0.0	11	0.8
High	355	90.1	252	38.6	964	68.9
Centers	30	7.6	377	57.7	250	17.9
Other (e.g., Home Education, Charters)	1	0.3	1	0.2	8	0.6
College Academy-BCC Central	2	0.5	23	3.5	34	2.4
Broward Virtual Education	0	0.0	0	0.0	133	9.5
Total	394	100.0	653	100.0	1,400	100.0

Note. Data does not include students not identifiable, or those with incomplete data, in the Data Warehouse for 2001-02 (*n*=5), 2002-03 (*n*=7), and 2003-04 (*n*=6). A breakdown by school is available from BECON upon request.

Table 7 presents the number of students who participated in BVEd courses by gender and year. The number of female participants grew from 231 in 2001-02 to 779 in 2003-04, while the

number of male participants grew from 163 to 621. The proportion of female students changed from 58.6% in 2001-02 (*n*=231) to 45.5% in 2002-03 (*n*=297) and to 55.6% (*n*=779) in 2003-04.

Table 7
Gender of Students Who Took BVEd Courses by Year

	2001-02		2002-03		2003-04	
Gender	*n*	*%*	*n*	*%*	*n*	*%*
Female	231	58.6	297	45.5	779	55.6
Male	163	41.4	356	54.5	621	44.4

Table 8 presents the number of students who participated in BVEd courses by race/ethnicity and year. There was growth in participation among all the ethnic groups except Native American, which remained steady at three participants in all years. The participation rates remained relatively stable from 2001-02 to 2003-04. The participation of Black students registered an overall drop in the percentage of participating students from 2001-02 (29.4%, *n*=116) to 2003-04 (26.6% *n*=373).

Table 8
Race/ethnicity of Students Who Took BVEd Courses by Year

	2001-02		2002-03		2003-04	
Race/ethnicity	*n*	*%*	*n*	*%*	*n*	*%*
Asian or Pacific Islander	27	6.9	28	4.3	70	5.0
Black	116	29.4	106	16.2	373	26.6
Hispanic	50	12.7	129	19.8	237	16.9
Multiracial	6	.8	6	.9	22	1.6
Native American	3	1.5	3	.5	3	.2
White	192	48.7	381	58.3	695	49.6

Table 9 presents the number of students who participated in BVEd courses by Free and/or Reduced-Price Lunch (FRL) status and year. The percentage of FRL students dropped from 17.0%, (*n*=67) in 2001-02 to 12.7%, (*n*=83) in 2002-03 and back to 16.4%, (*n*=230) in 2003-04. However, note that FRL status is not a good indicator for high school students, and thus should not be used to determine the extent to which SES students were participating in BVEd courses.

Table 9
Free and/or Reduced-Price Lunch Status of Students Who Took BVEd Courses by Year

	2001-02		2002-03		2003-04	
FRL status	*n*	*%*	*n*	*%*	*n*	*%*
FRL eligible	67	17.0	83	12.7	230	16.4
Non-FRL eligible	327	83.0	570	87.3	1,170	83.6

Table 10 presents the distribution of BVEd participants by Limited English Proficiency (LEP) status and year. The number of LEP (and non-LEP) students has increased from 2001-02 (*n*=20 and *n*=374, respectively) to 2003-04 (*n*=48 and *n*=1,352, respectively). However the proportion of LEP students has fallen from 5.1% in 2001-02 to 3.4% in 2003-04.

Table 10
Limited English Proficiency Status of Students Who Took BVEd Courses by Year

	2001-02		2002-03		2003-04	
LEP status	*n*	*%*	*n*	*%*	*n*	*%*
LEP	20	5.1	19	2.9	48	3.4
Non-LEP	374	94.9	634	97.1	1,352	96.6

Table 11 presents the distribution of BVEd participants by Exceptional Student Education (ESE) status and year. The proportion of ESE students has increased from 5.1% (*n*=20) in 2001-02 to 6.4% (*n*=89) in 2003-04.

Table 11
Exceptional Student Education Status of Students Who Took BVEd Courses by Year

	2001-02		2002-03		2003-04	
ESE status	*n*	*%*	*n*	*%*	*n*	*%*
ESE	20	5.1	49	7.5	89	6.4
Non-ESE	374	94.9	604	92.5	1,311	93.6

Funding Implications.

The primary source of funding for the BVEd program is provided through FTEs generated by students successfully completing (passed) BVEd courses. BVEd receives the full FTE generated by full-time BVEd students and the instructional FTE equivalent for part-time BVEd students. Each half-credit BVEd course a student completes and passes is equal to .0834 unweighted FTE. In 2003-04, the number of FTEs for part-time BVEd students was estimated and approved by the School Board based on anticipated enrollment in BVEd courses for the year. For example, in 2003-04, BCPS students were expected to take 3,125 half-credit BVEd courses that would generate the equivalent of 260.61 unweighted FTEs (3,125 x .0834 per completed course) for the district. At the beginning of the school year, the funds that would be generated by the 260.61 FTEs were then calculated and removed proportionately from each district high school budget. Initially, this funding process was met with resistance at district high schools. However, to successfully provide district students with the opportunity to take BVEd courses, no other funding alternative was identified.

Initially, $587,148 was allocated from district high schools in 2003-04 for the BVEd High School Instructional FTEs (260.61 unweighted FTEs). During 2003-04, the Budget department returned the funding equivalent of 40.43 unweighted FTEs to schools, reducing the allocation to $496,005. The actual student FTE count for 2003-04 will be determined upon receipt of final state FTE reports. Inaccurate data entry in the district's Data Warehouse in 2003-04 has made it difficult to determine actual BVEd course participation. BVEd course numbers are coded with an X at the end of the course number in the Data Warehouse. However, it was determined that in 2003-04 some schools had used an X at the end of course numbers that were not BVEd courses. This coding problem is currently being addressed by BECON.

FTE funding is generated for BVEd courses at the district rate from the state but only for courses taken by the student as part of their 25 hours per week state funded enrollment. FLVS, the provider of BVEd courses and the Franchiser, is currently the only entity that is able to collect beyond the 25 hours. That is, only FLVS is able to collect state funding for courses taken by students in excess of their normal enrollment. BVEd has mobilized the six other district franchises and enlisted the support of FLVS to initiate legislative changes that will allow the same funding opportunities (ability to collect for courses that are "extras" for the students) for franchisees.

Due to the nature of BVEd courses, some BVEd teachers can be employed year-round for students participating in BVEd outside the 180-day school year. For students who are home-schooled or attend a private/parochial school, the district/BVEd claims those students' FTE from the state. For 2004-05, BVEd has already enrolled over 30 students from private schools. At least 30 students from charter schools are also participating in BVEd, and the amount of funding generated by the equivalent FTE for a BVEd course is deducted from their overall funding allocation. The Franchise Agreement with FLVS does not allow BCPS to "sell" courses to students outside Broward County. Additionally, BVEd is not able to collect FTEs on any courses BVEd staff develops, unless the courses are developed in partnership with FLVS.

District BVEd expenses included FLVS franchise fees, virtual seat costs ($30 per .5 credit for the server, the course platform, maintaining the virtual records, email addresses, 24/7 technical assistance, electronic subscriptions to online learning materials and technology), learning materials costs and support staff costs. BVEd incurs no traditional school expenses related to transportation, utilities, cafeteria or media center costs, maintenance (classroom furniture, carpeting, painting, etc.), or support staff (custodial, security, or assistant principals).

Each year, the process to remove the equivalent BVEd instructional FTEs from district high schools budgets is repeated based on estimated BVEd participation for the coming year. The ability of the BVEd program to be fully self-funded may be determined by comparing actual FTEs generated by BVEd course completions at the end of the school year with total BVEd expenditures for 2003-04.

2. *What are the current practices and their perceived effectiveness of the other major school districts in Florida in implementing and funding distance learning programs?*

Staff members from the FLVS were interviewed to gain a statewide perspective on the use of online coursework in Florida and to determine the leading Florida school districts using online coursework to provide opportunities for their students. Subsequent telephone interviews were conducted with distance learning leaders from Orange, Polk, Palm Beach, and Pinellas counties to determine their current practices and views regarding distance learning courses.

Initially, to become affiliated with the FLVS, school districts had to certify that they would accept the grades and credits from the virtual school in the same manner as their own credits and grades. Currently, the four districts reviewed, as required by The Florida School Code (Florida Statute s. 1002.20, 2003), permit all students to access online courses after approval by the

students' guidance counselor and/or principal. Prior to the current Florida School Code dictating online access to students, Palm Beach County had only permitted student access to online courses that were not available at the home school.

Students are identified as potential online students in the four Florida districts by a combination of teacher encouragement, counselor recommendation, and self-selection. The four districts have in place a review and approval procedure for course enrollment that requires guidance counselor approval and parent concurrence before the student can enroll. All of the districts allow students to access the FLVS courses at any location and/or time they have Internet access available. The four Florida districts also allow the students to access the courses in school Media Centers, and one district actively encourages students to participate in online courses while they are in school. The four districts and FLVS reported that the major reasons for taking online courses were:

- Lack of availability of course or scheduling conflicts at the home school,
- Ability and desire to accelerate their academic progress,
- Resolution of conflicts with electives or school activities (e.g., band),
- Solve problems created by various health/learning disabilities,
- Allow students who travel to continue with their studies.

Three of the four districts reported that their students experienced success in terms of course completion with the FLVS courses, while the other district reported that they had a significant problem with course non-completion. All of the districts have learned that the appropriate selection and advising students who anticipate taking online courses is essential. The one school district that reported significant problems with course completions anticipated resolving the problem with revised advising and approval procedures involving significant parental participation. All of the districts allow their students access to the full selection FLVS courses. Broward is the only district to have developed a franchise program using its own teachers to teach the online courses. None of the districts' staff interviewed had conducted formal evaluations of the distance learning opportunities available to their students. They all reported that the FLVS has increased students' access to courses that may not be available at their school, that have scheduling conflicts, or are not accessible for medical or other reasons.

At other districts, the FLVS receives the instructional portion of the FTE generated by the student only if the student completes the course. Unless the student is full-time with FLVS, the local school district receives the difference between the full-time FTE and the instructional FTE received by FLVS. In this manner, districts fund the support costs associated with students taking FLVS courses and FLVS is funded by instructional FTE generation.

3. *What is the impact of distance learning on student test scores and progress? Does the program increase student access to important coursework?*

To determine whether participating in BVEd courses had an impact on student achievement, FCAT Developmental scores in reading and mathematics were examined for BVEd and non-BVEd students from 2001-02 through 2003-04. Students who participated in BVEd courses in 2002-03 only were compared to students who had not participated in any BVEd course in either 2001-02 or 2002-03. Similarly, students who participated in BVEd courses in 2003-04

only were compared to students who had not participated in any BVEd course in either 2002-03 or 2003-04. To control for student factors that affect achievement, weighted comparison groups of non-BVEd students were created for each grade level. These comparison groups were weighted on the demographic variables of gender, race, FRL status, LEP status, and ESE status. Using these weighted comparison groups ensured that the BVEd and non-BVEd students were of similar demographic composition.

The FCAT Developmental Score was selected for this analysis because the score is designed to facilitate tracking of student progress over time. According to the Department of Education Technical Assistance Paper (Florida Department of Education, 2002), "it is possible to monitor student progress across the grade levels," "the measurement of gains" is possible, and "their use by districts and schools permit educators to improve their understanding of educational processes and programs." Since the FCAT is not given to students beyond Grade 10, students in Grades 11 and 12 were not included in these analyses.

Tables 12 and 13 and Figures 3 through 10 present the comparisons between the performance of BVEd and non-participating students on the Reading and Mathematics subtests for the 2001-02, 2002-03 and 2003-04 years. Inspection of these tables and figures shows that BVEd students registered higher mean scores than did the comparison group on all sub-tests and for all years. However, the question of interest was: Did the BVEd students gain more or less than the non-participating students? To test this question, the reading scores were entered into a two-factor Analysis of Variance (ANOVA) with BVEd participation serving as a between groups factor and school year as a repeated factor. The presence of a significant interaction term would indicate that there was a difference in the achievement gain of BVEd students compared to that of non-participating students.

Table 12
Developmental Scores of 2002-03 9th and 10th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03

		2001-02		2002-03	
Grade/measure	*n*	Mean	Std. Dev.	Mean	Std. Dev.
Grade 9 Reading					
BVEd students	143	1,977.3	164.4	1,995.7	224.5
Comparison group students	143	1,855.9	269.4	1,864.9	293.7
Grade 10 Reading					
BVEd students	153	2,102.3	233.4	2,203.1	201.4
Comparison group students	153	1,942.4	262.7	2,030.6	248.1
Grade 9 Mathematics					
BVEd students	142	1,946.7	126.9	1,985.9	122.7
Comparison group students	142	1,883.2	197.9	1,937.2	166.6
Grade 10 Mathematics					
BVEd students	153	2,069.8	139.8	2,120.2	136.6
Comparison group students	153	1,978.2	168.1	2,031.7	167.4

Table 13

Developmental Scores of 2003-04 9th and 10th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04

		2002-03		2003-04	
Grade/measure	*n*	Mean	Std. Dev.	Mean	Std. Dev.
Grade 9 Reading					
BVEd students	80	1,827.3	258.9	1,859.6	265.8
Comparison group students	80	1,725.2	268.0	1,782.1	273.2
Grade 10 Reading					
BVEd students	321	2,028.7	252.2	2,096.3	256.8
Comparison group students	321	1,936.6	266.8	2,012.9	275.6
Grade 9 Mathematics					
BVEd students	81	2,007.6	182.9	2,045.3	201.4
Comparison group students	81	1,826.6	144.7	1,832.9	175.8
Grade 10 Mathematics					
BVEd students	319	2,019.9	144.2	2,079.9	129.5
Comparison group students	319	1,977.8	152.3	2,033.8	159.3

There was no difference in the growth in reading developmental scores for 9th graders between BVEd and comparison students from 2001-02 to 2002-03 or from 2002-03 to 2003-04. In other words, there was no significant interaction between BVEd participation and time (for 2001-02 to 2002-03, F=.20 and for 2002-03 to 2003-04, F=.21).

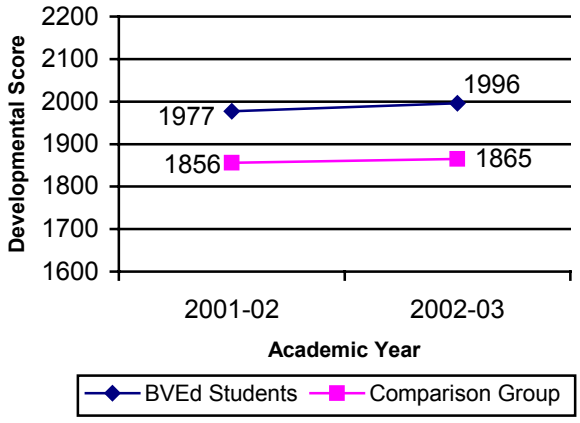


Figure 3. FCAT Reading Scores of 9th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

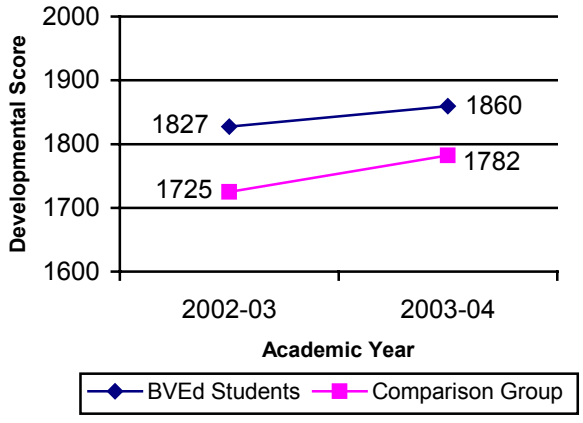


Figure 4. FCAT Reading Scores of 9th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

No differences in the growth in reading developmental scores were found for 10th graders between BVEd and comparison students from 2001-02 to 2002-03 or from 2002-03 to 2003-04. In other words, there was no significant interaction between BVEd participation and time (for 2001-02 to 2002-03, F=.16 and for 2002-03 to 2003-04, F=.40).

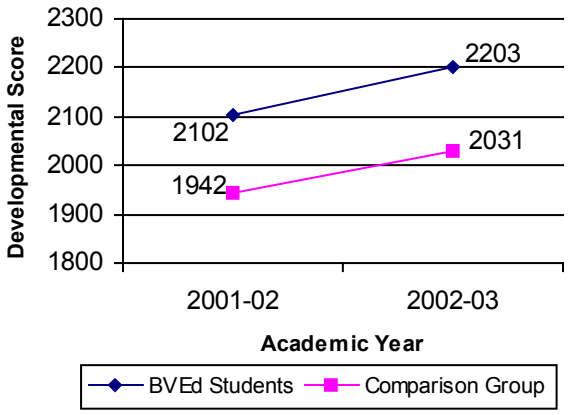


Figure 5. FCAT Reading Scores of 10th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

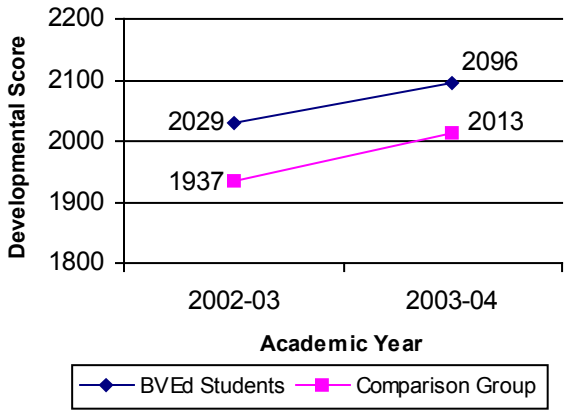


Figure 6. FCAT Reading Scores of 10th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

There was no difference in the growth in mathematics developmental scores for 9th graders between BVEd and comparison students from 2001-02 to 2002-03 or from 2002-03 to 2003-04. In other words, there was no significant interaction between BVEd participation and time for 2001-02 to 2002-03, (F[1,160]=2.14, p=.145) and for 2002-03 to 2003-04, (F[1,282]=1.72, p=.190).

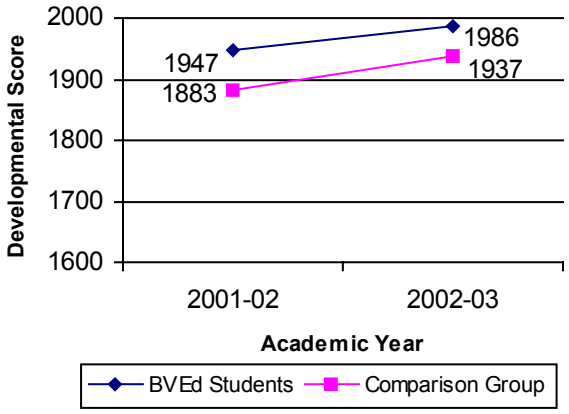


Figure 7. FCAT Mathematics Scores of 9th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

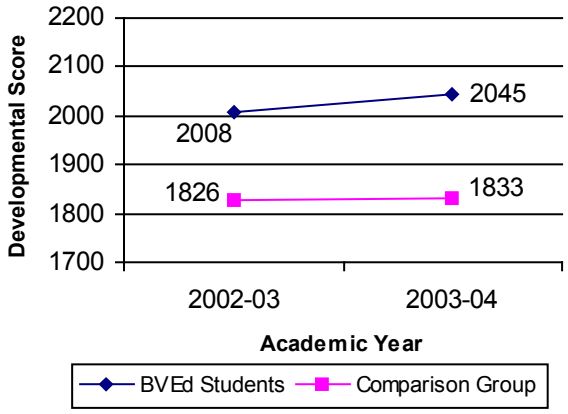


Figure 8. FCAT Mathematics Scores of 9th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

No differences in the growth in mathematics developmental scores were found for 10th graders between BVEd and comparison students from 2001-02 to 2002-03 or from 2002-03 to 2003-04. In other words, there was no significant interaction between BVEd participation and time (for 2001-02 to 2002-03, F=.40 and for 2002-03 to 2003-04, F=.09).

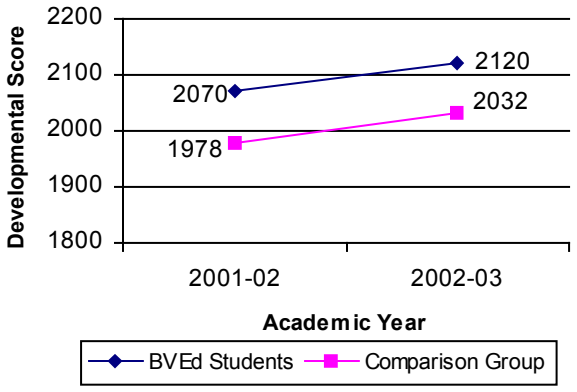


Figure 9. FCAT Mathematics Scores of 10th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

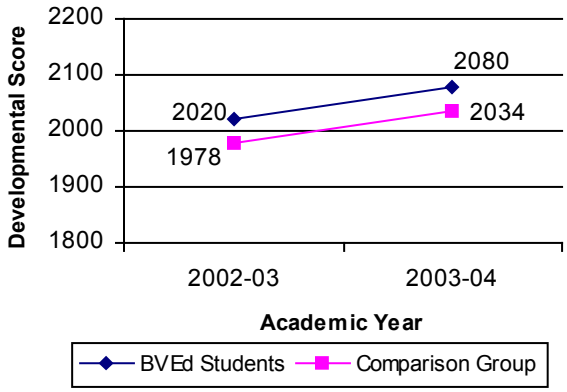


Figure 10. FCAT Mathematics Scores of 10th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

The effect of participating in a BVEd course on student achievement was also analyzed by looking at whether students moved up at least one Achievement Level on the FCAT in both reading and mathematics. Achievement Level movement was examined for both 2002-03 and 2003-04 9th and 10th grade students. Table 14 presents Achievement Level movement of 2002-03 9th and 10th grade BVEd and comparison group students from 2001-02 to 2002-03. A greater proportion of 10th grade BVEd students (40.0%, n=60) than traditional students (22.3%, n=33) moved up at least one Achievement Level in reading during the 2002-03 school year, $\chi^2(1)=10.96$, $p<.001$. In the other 2002-03 student categories, there was no significant difference between the proportion of BVEd and traditional students moving up at least one Achievement Level.

Table 14
Achievement Level Movement of 2002-03 9th and 10th Grade BVEd and Comparison Group Students From 2001-02 to 2002-03

		Moved up at least one level			
Type	*n*	Yes	No	χ^2	*P*
Grade 9 Reading					
BVEd students	143	18.2%	81.8%	2.22	0.14
Comparison group students	143	11.9%	88.1%		
Grade 9 Mathematics					
BVEd students	143	18.9%	81.1%	0.16	0.69
Comparison group students	143	20.8%	79.2%		
Grade 10 Reading					
BVEd students	150	40.0%	60.0%	10.96	.001
Comparison group students	150	22.3%	77.7%		
Grade 10 Mathematics					
BVEd students	150	20.0%	80.0%	0.57	0.45
Comparison group students	150	23.6%	76.4%		

Table 15 presents Achievement Level movement of 2003-04 9th and 10th grade BVEd and comparison group students from 2002-03 to 2003-04. Ninth grade BVEd students (16.2%, n=22) moved up at least one Achievement Level in mathematics in 2003-04 in greater proportions than did traditional students (2.6%, n=3), $\chi^2(1)=14.77$, $p<.0001$. In the other 2003-04 grade level-subject categories there were no significant differences between the proportion of BVEd and traditional students moving up at least one Achievement Level.

Table 15
Achievement Level Movement of 2003-04 9th and 10th Grade BVEd and Comparison Group Students From 2002-03 to 2003-04

		Moved up at least one level			
Type	*n*	Yes	No	χ^2	*P*
Grade 9 Reading					
BVEd students	136	5.1%	94.9%	1.63	0.20
Comparison group students	136	2.2%	97.8%		
Grade 9 Mathematics					
BVEd students	136	16.2%	83.8%	14.77	.001
Comparison group students	136	2.6%	97.4%		
Grade 10 Reading					
BVEd students	365	24.7%	75.3%	3.22	.07
Comparison group students	365	19.2%	80.8%		
Grade 10 Mathematics					
BVEd students	365	24.1%	75.9%	0.76	0.38
Comparison group students	365	21.4%	78.6%		

Impact by BVEd Course

To determine whether a difference in the gains recorded by students on the FCAT developmental scale scores appeared within courses, an attempt was made to analyze the impact of taking particular BVEd courses on the corresponding FCAT developmental scale score (e.g., an Algebra course and the FCAT Mathematics score). However, the only course with sufficiently large BVEd enrollment combined with full test score (scores for both 2002-03 and 2003-04) and demographic data was World History. The results for students taking this course were analyzed similarly to the subject/grade level analyses previously discussed. In summary, students taking the 2003-04 online course through BVEd were compared to students taking the same course (as well as all of their other courses) at their home school. Comparison groups were weighted by gender, race, FRL status, LEP status, and ESE status; two-factor ANOVAs were also performed as in previous analyses. The results of this analysis are summarized in Table 16.

There was no difference in the growth in reading developmental scores for 10th graders taking World History between BVEd and comparison students from 2002-03 to 2003-04. In other words, there was no significant interaction between BVEd participation and time (for 2002-03 to 2003-04, F=.19).

Table 16
Developmental Scores of 9th Grade BVEd and Comparison Group Students by Course

		2002-03		2003-04	
Course/grade/subject	*n*	Mean	Std. Dev.	Mean	Std. Dev.
World History - Grade 10 Reading					
BVEd students	313	2,064.9	246.1	2,134.5	240.8
Comparison group students	313	1,854.2	209.2	1,914.8	220.9

Student Progress

To determine whether taking online courses had an impact on student progress, the total number of credits earned at the end of the 2001-02 and 2002-03 school years for BVEd and non-BVEd students were compared as were the total number of credits earned at the end of the 2002-03 and 2003-04 school years. Weighted comparison groups were formed based on gender, race, FRL status, LEP status, and ESE status. Students who participated in BVEd courses were compared to students who have not participated in any BVEd courses. Two-factor ANOVAs were performed to compare the number of total credits across the two groups and across the two years. Ninth grade students were excluded from these analyses because the number of high school credits earned in 8th grade would not be sufficiently large for comparison. The results of these analyses are presented in tabular form in Table 17 and 18 and graphically in Figures 11 through 16.

Table 17
Number of Credits Earned by 2002-03 10th Through 12th Grade BVEd and Comparison Group Students

		2001-02		2002-03	
Grade/group	*n*	Mean	Std. Dev.	Mean	Std. Dev.
Grade 10					
BVEd students	153	8.3	1.1	16.3	1.2
Comparison group students	153	7.6	1.4	14.4	2.5
Grade 11					
BVEd students	104	15.7	2.0	23.3	2.5
Comparison group students	104	14.6	2.3	21.5	3.3
Grade 12					
BVEd students	214	22.2	2.2	28.9	2.8
Comparison group students	214	22.1	2.5	28.7	3.4

Table 18

Number of Credits Earned by 2003-04 10th Through 12th Grade BVEd and Comparison Group Students

Grade/group	*n*	2002-03 Mean	2002-03 Std. Dev.	2003-04 Mean	2003-04 Std. Dev.
Grade 10					
BVEd students	335	8.0	1.5	15.5	2.4
Comparison group students	335	7.7	1.4	14.6	2.4
Grade 11					
BVEd students	232	14.2	2.5	21.0	4.0
Comparison group students	232	14.4	2.3	21.2	3.3
Grade 12					
BVEd students	506	21.3	3.8	28.4	4.2
Comparison group students	506	21.6	3.0	28.4	3.7

Overall, 10th grade BVEd students increased their number of credit hours over the course of the year more than did the comparison students in both the 2002-03 school year (F[1, 304]=11.95, p<.001) and the 2003-04 school year (F[1, 668]=18.92, p<.001). The associated effect sizes (η^2=.20 and .03, respectively), however, suggests that the overall difference was moderate to small, respectively.

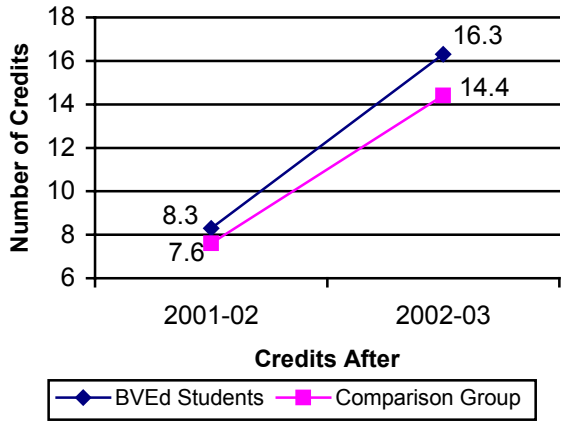


Figure 11. Number of Credits Earned By 10th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

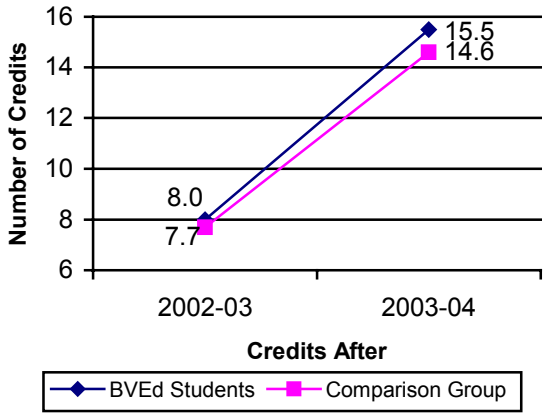


Figure 12. Number of Credits Earned By 10th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

Overall, 11th grade BVEd students increased their number of credit hours over the course of the year more than did the comparison students in the 2002-03 school year (F(1, 206)=11.95, p<.001), but were similar in the 2003-04 school year (F=.40). The effect size for the 2002-03 school year (η^2=.08), however, suggests that the overall difference was small.

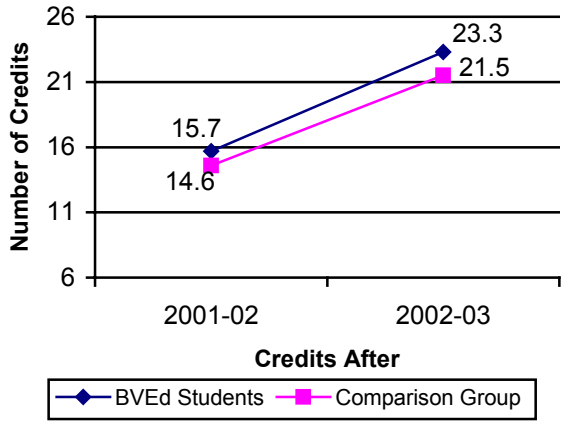


Figure 13. Number of Credits Earned By 11th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

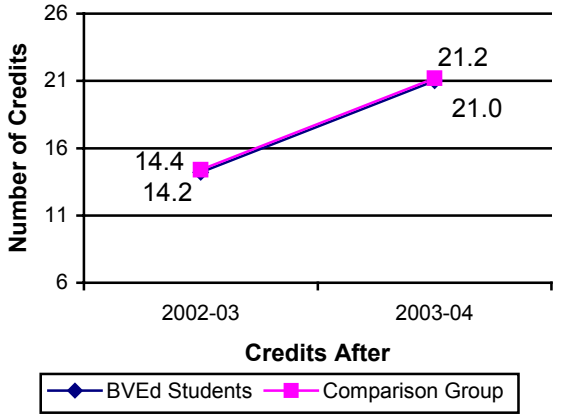


Figure 14. Number of Credits Earned By 11th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

During the 2002-03 school year, 12th grade BVEd students did not increase their number of credit hours over the course of the year more than did the comparison students (F=.27). There is a suggestion that 12th grade students increased their number of credit hours over the course of the year more than did the comparison students in the 2003-04 school year (F(1, 1,010)=5.11, p<.024). The associated effect size (η^2=.01), however, suggests that the overall difference was negligible.

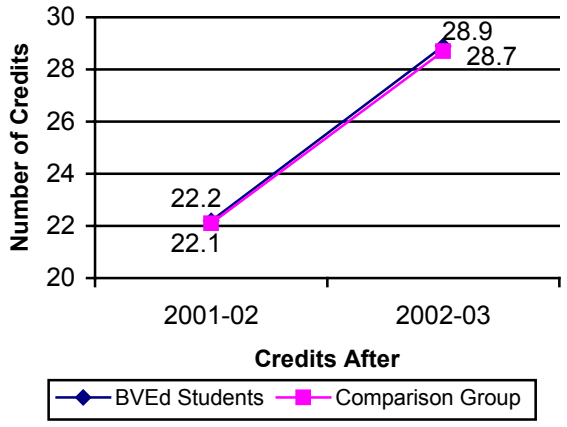


Figure 15. Number of Credits Earned By 12th Grade BVEd and Comparison Group Students, 2001-02 to 2002-03.

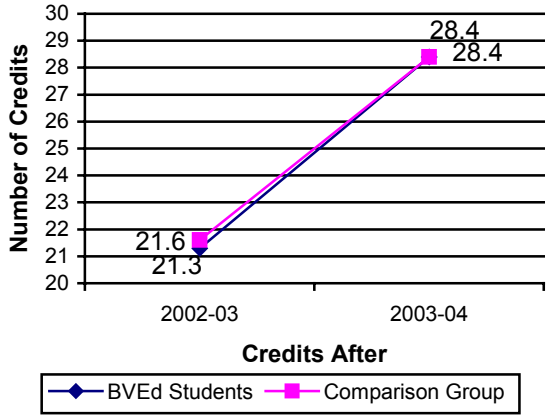


Figure 16. Number of Credits Earned By 12th Grade BVEd and Comparison Group Students, 2002-03 to 2003-04.

The results of these analyses indicate that BVEd students likely to make more progress (earn more credits) during the school year than the comparison group. However, the effect sizes suggest that there was little practical effect of these differences.

Access.

The fact that there is a rapidly growing enrollment in BVEd courses and that BVEd students, on average, earn the same or more credits than do other students supports the conclusion that BVEd increases access to coursework considered important by students. The staff of the FLVS observed that the program in BCPS needs a leader who can devote full attention to the day-to-day challenges of an online program. Staff indicated that they had received many phone calls and online registration inquiries from Broward parents and students who were unaware that this option was available in Broward County through BVEd. This observation indicates the presence of an additional latent demand.

The results of telephone interviews with personnel from Broward, other districts, and FLVS suggest that online coursework increases access for students who:

- Could not take a particular course (e.g., Advanced Placement) due to the fact that it was not offered at their home school;
- Could not take a particular course due to scheduling conflicts at their home school (e.g., between an elective like Band and an advanced course offered only once during the day);
- Wanted to take more courses than they could during a standard school day;
- Wanted to take particular courses while also desiring to engage in work experience during school hours;
- Were home bound; and
- Were traveling for an extended period with their families.

In each of these cases (and certainly others) the BVEd courses freed the student from the constraints of time and location in the selection of courses to advance their academic careers.

4. What is the impact of distance learning on student grades and passing rates?

A comparison of the overall grading pattern of students in all .5 credit online courses during 2003-04 compared to students in .5 credit traditional courses is presented in Table 19 and Figure 17. Table 19 also presents a comparison of the grading patterns by subjects. Overall, for all courses and for all subjects there was a significant difference between the grading pattern in online and traditional courses. Online courses had a tendency to have more A's (31% vs. 21%), fewer B's (21% vs. 29%), fewer C's (17% vs. 26%), %), fewer D's (9% vs. 12%), and more F's (22% vs. 11%) than traditional courses, $\chi^2(4)=514$, $p<.001$. BVEd students tended to earn more grades at the extreme ends of the grading scale and fewer grades in the middle. This bi-modal trend in the grades earned by BVEd students may indicate that students fall into two distinct groups, those that did well in distance learning courses and those who did not.

Note that the distribution of BVEd grades as determined by FLVS deviates from the BCPS analyses presented, which is based on data in the district's Data Warehouse and the inclusion of all grades earned in BVEd courses. FLVS distinguishes between students receiving F's for failing to master the subject matter and students receiving F's who did not complete the course and were unable to withdraw by the required date. These latter students who did not complete the course and were unable to withdraw in time are eliminated from FLVS's course grade

distributions, which results in fewer BCPS students earning F's as determined by FLVS. BCPS calculations include all course grades regardless of whether students failed an online course due to inability to master the subject matter or failure to complete assignments and withdraw in time.

Table 19
Distribution of 2003-04 Grades of Online and Traditional Courses

		Grade distribution						
Type	*N*	A	B	C	D	F	χ^2	*p*
All courses								
BVEd	2,385	31%	21%	17%	9%	22%	219.0	0.00
Traditional	2,385	21%	29%	26%	12%	11%		
English								
BVEd	467	20%	23%	20%	11%	26%	37.1	0.00
Traditional	467	19%	31%	26%	12%	12%		
Mathematics								
BVEd	411	18%	15%	21%	13%	34%	60.2	0.00
Traditional	411	14%	26%	29%	17%	13%		
Social Studies								
BVEd	684	38%	24%	19%	7%	12%	47.6	0.00
Traditional	684	23%	31%	26%	11%	9%		
Science								
BVEd	207	21%	15%	12%	15%	36%	49.6	0.00
Traditional	207	18%	29%	28%	13%	12%		
Computer								
BVEd	153	43%	8%	8%	10%	32%	32.9	0.00
Traditional	153	30%	28%	21%	9%	12%		
Foreign Language								
BVEd	39	33%	8%	23%	0%	36%	14.2	0.00
Traditional	39	25%	28%	24%	11%	11%		
Other								
BVEd	424	45%	25%	13%	5%	12%	29.4	0.00
Traditional	424	30%	28%	21%	9%	12%		

Note. Grades were reported on a term basis, so that a typical full year course would result in two grades.

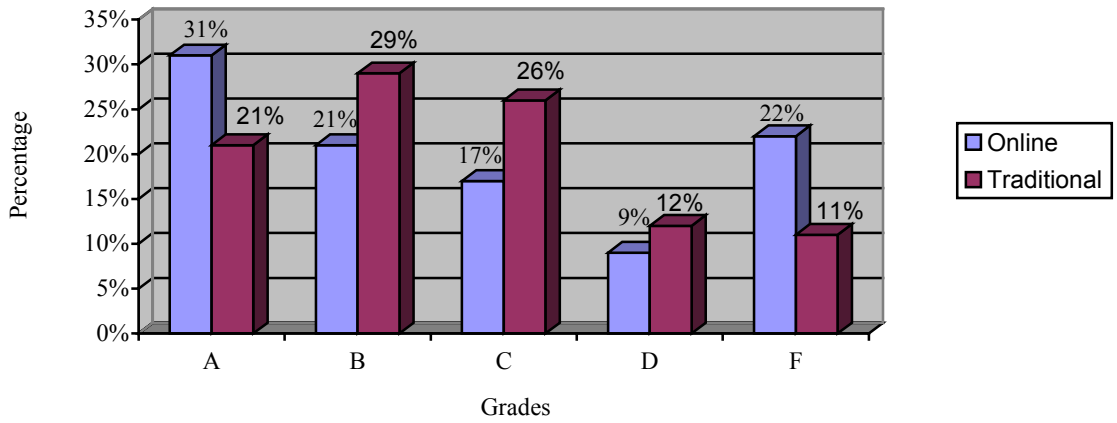


Figure 17. Overall Distribution of Grades in 2003-04 Online and Traditional Courses.

The overall passing rate in 2003-04 online courses compared to traditional courses is presented in Table 20. The passing rate is determined by subtracting the proportion of students failing the course (receiving a grade of F) from one. A Z-test for the difference in two proportions was computed to determine whether the differences found were significant. The overall passing rate in online courses (78.0%, n=256) was significantly (Z=-200.8, p>.000) less than that in traditional courses (88.6%, n=485,751). This same pattern was exhibited in every subject, with relatively small differences exhibited in Social Studies and Other courses (-2.9% and 0.4%, respectively).

As stated previously, FLVS calculations of the distribution of BVEd course grades excludes students earning F's who did not complete the course and were unable to withdraw by the required date. As a result, the BVEd passing rate for 2003-04 as determined by FLVS is higher at 89.0%.

Table 20
Passing Rates in 2003-04 Online and Traditional Courses

	BVEd courses		Traditional courses				
Course	*n*	Passing rate	*n*	Passing rate	Difference	Z	*P*
All courses	2,385	78.0%	485,751	88.6%	-10.6%	-200.8	0.00
English	467	73.7%	130,175	88.4%	-14.7%	-112.9	0.00
Mathematics	411	66.4%	77,206	86.9%	-20.5%	-116.7	0.00
Social Studies	684	88.2%	98,546	91.1%	-2.9%	-27.4	0.00
Science	207	63.8%	89,635	88.2%	-24.4%	-111.2	0.00
Computer	153	67.8%	17,273	88.1%	-20.3%	-46.5	0.00
Foreign Language	39	64.1%	16,306	88.6%	-24.5%	-29.2	0.00
Other	424	87.7%	56,610	88.1%	-0.4%	-2.5	0.01

5. What is the impact of distance learning on teacher professional development?

Teachers (*n*=15) who participated in online courses provided their perspectives regarding distance learning as a professional development modality. The respondents consisted of mostly elementary school teachers (80%, *n*=12) and some middle school teachers (20%, *n*=3). Their teaching experience ranged from 3 to 24 years, with a median of 15 years. The modal educational level was a master's degree (53%, *n*=8), followed by a bachelor's degree (40%, *n*=6) with one respondent (7%) holding a specialist degree. All (100%, *n*=15) of the respondents indicated that the professional development program was offered through two-way interactive video, and one (7%) indicated that it was offered through the Internet. Only one (7%) indicated that he/she did not earn in-service points for participating in the professional development activity.

The results of the survey are summarized in Table 21. All of the respondents (100%, *n*=15) agreed that distance learning can be effective when other options are not possible, that they would take another distance learning course, and that they were comfortable with the technology involved. Almost all of the respondents agreed that two-way interactive video was an effective method (93%, *n*=14), the difference in communication and interaction with the instructor (93%, *n*=14) or with other teachers (86%, *n*=12) compared to traditional courses was not a problem, that they would recommend distance learning courses to a colleague (93%, *n*=14), and that they would like to learn more about distance learning opportunities (93%, *n*=14).

More than half of the respondents found the distance learning course as helpful as a traditional course (67%, *n*=10), agreed that internet-based professional development is an effective method (57%, *n*=8), had been encouraged to seek more distance learning opportunities (67%, *n*=10) and preferred to take a distance learning course instead of a traditional course (53%, *n*=8).

Table 21
Teacher Distance Learning Responses

Item	*n*	Percentage responding				
		SA	A	D	SD	DK
Distance learning can be used effectively to provide professional development opportunities when they would not otherwise be possible.	15	46.7	53.3	0.0	0.0	0.0
I would take another professional development class through distance learning.	15	40.0	60.0	0.0	0.0	0.0
I would recommend distance learning courses to other teachers	15	40.0	53.3	6.7	0.0	0.0
I would prefer to take a distance learning course instead of a traditional in-service course.	15	13.3	40.0	26.7	0.0	20.0
I found the course provided through distance learning to be as helpful as a traditional in-service (in-person) course.	15	20.0	46.7	20.0	0.0	13.3

(*table continues*)

Table 21 (*continued*).

Item	*n*	Percentage responding				
		SA	A	D	SD	DK
Two-way interactive video is an effective method for delivering professional development.	15	33.3	60.0	0.0	0.0	6.7
Internet-based professional development is an effective method of delivery.	14	7.1	50.0	14.3	0.0	28.6
I was comfortable with the technology used.	15	26.7	73.3	0.0	0.0	0.0
The difference in the amount of communication and interaction with the instructor in the distance learning course as compared to a traditional in-service (in-person) course was not a problem for me.	15	20.0	73.3	6.7	0.0	0.0
The difference in the amount of communication and interaction with other teachers in the distance learning course compared to a traditional in-service (in-person) course was not a problem for me.	14	21.4	64.3	14.3	0.0	0.0
Participation in this distance learning course has encouraged me to seek more distance learning opportunities.	15	13.3	53.3	13.3	0.0	20.0
I would like to learn more about distance learning opportunities for professional development.	15	20.0	73.3	6.7	0.0	0.0

Note. SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree, DK = Don't Know.

When asked what additional distance learning courses they would like to take, responding teachers suggested graduate level courses, courses on comprehensive teaching strategies, and specific courses on problem solving strategies and reading strategies. The teachers suggested improving the distance learning professional development courses by providing more variety, activities and lessons. They suggested holding them outside of the school day, and more assistance for resolution of technical problems. The teachers also reflected that there were still some new program problems such as technical glitches and lack of clear directions and expectations. Overall, the responses indicated a desire for additional distance learning opportunities on planning days and/or after school and a feeling that this methodology was the wave of the future.

Summary and Conclusions

The results of this evaluation effort reflect the previous findings that "distance learning methodologies contribute additional means of providing learning opportunities without negatively effecting student achievement" (Younkin, 1998). This conclusion also supports the

findings in the literature that there are no significant differences in the achievement of students who take traditional or distance learning courses (Hawkes, 1996, Cavanaugh, 1999).

Students participating in online coursework demonstrated an equivalent amount of growth in both reading and mathematics on the FCAT at the ninth and tenth grade levels for both the 2002-03 and 2003-04 school years. There were isolated indications that BVEd students achieved more as indicated by the fact that tenth grade BVEd students moved up at least one Achievement Level in greater proportions in reading during the 2002-03 school year than did traditional students and ninth grade BVEd students moved up at least one Achievement Level in greater proportions in mathematics during the 2003-04 school year than did traditional students.

There was a tendency for students in online courses to receive more A's and F's than students in traditional courses. This increased number of F's resulted in the finding that the overall passing rate in online courses was significantly lower than in traditional courses. These observations, reflecting students' performance in online courses at the extremes of the grading scale, tend to suggest that there were perhaps two types of students taking these courses, those for whom online coursework was stimulating, and those who experienced difficulties with the increased self-motivational demands of online coursework.

Students who took online courses did tend to earn more credits during the year. This indicates that participation in BVEd has a positive effect on student academic progress. Taken together with the observations of the FLVS and BCPS staff that online courses provide an alternative for students with availability, scheduling, or other problems with taking traditional coursework, we can conclude that online courses improve student access to coursework which they consider important.

Distance learning methodologies were perceived by teachers who participated in them to be effective and teachers reported that they were not hindered by the differences in the amount of interaction and communication with the instructor or other teachers. Distance learning opportunities were considered desirable by a majority of teachers who participated in them.

Recommendations

1. BECON's Distance Learning Director should continue pursuing the co-development of online courses with FLVS in 2004-05 to establish the BVEd program as a full partner in the provision of online educational opportunities for the students of Broward County. The Distance Learning Director should establish a promotional plan to publicize the availability of BVEd online opportunities to teachers, students and parents. Additionally, efforts should be made to measure, and given budget restraints, provide for the necessary resources so that demand for online courses does not significantly exceed course availability and create frustration for students and parents.

2. The BVEd program is funded for each course that a student completes and passes. BVEd students tend to receive more F's than students taking traditional courses which results in significantly lower passing rates for BVEd students. Therefore, the Distance Learning

Director should ensure that future research is conducted that seeks to determine whether there are identifiable indicators of student success or lack thereof that will be useful in providing guidance for the student counseling process of potential BVEd students.

3. By February 28, 2005, BECON's Distance Learning Director will ensure that mechanisms are in place for accurately determining student and teacher participation levels in BVEd, videoconferencing, and other distance learning initiatives. Specifically, the Distance Learning Director will:
   - Ensure that BVEd courses and participants are accurately recorded in the district's Data Warehouse. The Distance Learning Director shall work with Core Curriculum staff to effectively communicate standards across the district, and ETS staff to ensure that incorrect course numbers cannot be assigned/entered for BVEd or non-BVEd courses.
   - Develop and implement a BECON or Data Warehouse tracking mechanism for students, teachers, and district staff participating in videoconferencing programs across the district. Procedures for documenting videoconferencing participation levels for programs not offered through BECON (i.e., school to school) should be developed and implemented.

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Appendix
2003-04 Broward Virtual Education Courses

Subject/course	2001-02		2002-03		2003-04	
	n	%	*n*	%	*n*	%
English Courses						
English I	35	6.3	6	0.5	106	4.5
English II	12	2.2	7	0.6	84	3.6
English III	2	0.4	3	0.3	67	2.8
English IV	17	3.0	11	1.0	95	4.0
English I Honors	12	2.2	--	--	8	0.3
English II Honors	4	0.7	--	--	10	0.4
English III Honors	--	--	16	1.4	7	0.3
English IV Honors	--	--	6	0.5	7	0.3
AP English Language Composition	1	0.2	55	5	52	2.2
AP English Literature Composition	--	--	29	2.6	31	1.3
Total	83	15.0	133	11.9	467	19.7
Mathematics Courses						
Algebra I	64	11.5	6	0.5	138	5.8
Algebra I Honors	3	0.5	--	--	8	0.3
Algebra II	--	--	7	0.6	84	3.5
Algebra II Honors	--	--	--	--	9	0.4
Pre-Calculus	--	--	2	0.2	10	0.4
AP Calculus AB	1	0.2	9	0.8	13	0.5
Geometry	72	12.9	23	2.1	138	5.9
Geometry Honors	3	0.5	4	0.4	11	0.5
Total	143	25.6	51	4.6	411	17.3
Social Studies Courses						
American Government	1	0.2	8	0.7	64	2.8
American Government Honors	1	0.2	2	0.2	8	0.3
AP American Government	23	4.1	24	2.2	18	0.8
American History	--	--	2	0.2	57	2.4
American History Honors	--	--	15	1.4	9	0.4
AP American History	--	--	81	7.3	--	--
Economics	27	4.8	9	0.8	57	2.4
Economics Honors	4	0.7	3	0.3	9	0.4
AP Macroeconomics	--	--	2	0.2	3	0.1
AP Microeconomics	--	--	22	2	48	2.0
World History	--	--	114	10.3	171	7.1
World History Honors	--	--	177	16.0	213	8.9
AP U.S. Govt./Political Science	--	--	--	--	27	1.1
Total	56	10.0	459	41.6	684	28.7

(*table continues*)

Appendix – 2003-04 Broward Virtual Education Courses (*continued*).

Subject/course	2001-02		2002-03		2003-04	
	n	%	*n*	%	*n*	%
Science Courses						
Biology I	2	0.4	5	0.5	58	2.4
Biology I Honors	--	--	6	0.5	7	0.3
AP Biology	--	--	--	--	4	0.2
Chemistry I	--	--	1	0.1	17	0.7
Chemistry I Honors	--	--	1	0.1	--	--
Earth/Space Science	2	0.4	--	--	67	2.8
Marine Science I	--	--	12	1.1	28	1.2
Marine Science Honors	--	--	--	--	3	0.1
Physics I	7	1.3	61	5.5	11	0.5
Physics I Honors	73	13.1	71	6.4	12	0.5
Total	84	15.2	157	14.2	207	8.7
Computer Technology Courses						
Computer Programming Basic I	1	0.2	1	0.1	19	0.8
Computer Programming Basic II	--	--	1	0.1	--	--
Computer Applications HTML 3.2	--	--	2	0.2	--	--
Intermediate BASIC Skills	--	--	--	--	38	1.6
Business Software Applications 1	--	--	--	--	5	0.2
Business Systems and Technology	--	--	2	0.2	59	2.5
Emergent Computer Technology	--	--	--	--	1	0.0
AP Computer Science A	--	--	2	0.2	2	0.1
Web Design 1	--	--	--	--	24	1.0
Web Masters	--	--	--	--	5	0.2
Total	1	0.2	8	0.8	153	6.4
Foreign Language Courses						
Spanish I	--	--	--	--	24	1.0
Latin I	--	--	--	--	13	0.5
Latin II	--	--	1	0.1	2	0.1
Total	0	0.0	1	0.1	39	1.6
Other Courses						
AP Art/Art History	--	--	--	--	2	0.1
Fitness Lifestyle Design	--	--	--	--	41	1.8
Health I Life Management Skills	117	21.0	211	19.0	194	8.1
Personal Fitness	50	9.0	68	6.1	145	6.1
FCAT Prep 10th grade	14	2.5	18	1.6	--	--
Middle School Critical Thinking	--	--	--	--	2	0.1
SAT Prep/Critical Thinking Skills	10	1.8	2	0.2	40	1.7
Total	191	34.3	299	26.9	424	17.9
Combined total	558	100.0	1,108	100.0	2,385	100.0

Note. Data represents semester enrollments (0.5 semester credit). Enrollment data for 2001-02 and 2002-03 was provided by BECON. Dashes indicate no participants. AP indicates Advanced Placement.

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
OFFICE OF THE SUPERINTENDENT

DR. FRANK TILL
SUPERINTENDENT OF SCHOOLS

Telephone: (754) 321-2600 **Facsimile: (754) 321-2701**

Approved memorandum with signatures is on file.

March 9, 2004

TO: School Board Members

FROM: Katherine Blasik, Ph.D., Assistant Superintendent
Research, Evaluation, Assessment & Boundaries

VIA: Frank Till
Superintendent of Schools

SUBJECT: **DIGITAL EDUCATION TEACHER ACADEMY EVALUATION REPORT**

The Digital Education Teacher Academy (DETA) began in Summer 2002 as a collaboration between Broward County Public Schools (BCPS) and the Teaching and Leadership Center at Florida Atlantic University (FAU). The course provided participants with the opportunity to use technology to improve student achievement; learn strategies for integrating technology into the classroom; and learn how to use new technologies such as internet-based curriculum and digital tools. The course outcomes and activities incorporated the National Educational Technology Standards (NETS) and the Florida Sunshine State Standards. The attached report examines factors related to program implementation, the impact of the DETA on the instructional practices of participating teachers, and the curricular structure of the DETA course.

Overall, findings suggest that the DETA has positively impacted the knowledge and abilities of participants regarding the incorporation of technology into the classroom. However, while participants substantially agreed to gaining knowledge and skills aligned to the NETS, many had not been able to translate these abilities into actual classroom practice. The primary factors mentioned as facilitating or blocking the incorporation of technology into changes in the pedagogical approaches used in the classroom has been found to be school site specific: (a) school infrastructure, including the availability and access of appropriate technology and technical support; (b) school climate, or the schoolwide emphasis on technology; and (c) administrative support, including the provision for adequate time for training and planning.

In response to these findings, DETA training priorities have been refocused towards whole school training to eliminate program barriers. A recommendation is subsequently made to continue the transition to a schoolwide emphasis on technology training to maximize the impact of technology integration into the classroom by establishing a more effective school-based

technology infrastructure. This recommendation specifies methods for providing technology support, ensuring the targeted use of technology, aligning technology and curriculum, and identifying measurable benchmarks to determine school success. A final recommendation is made to ensure the use of pre- and post-assessments of classroom observations in future evaluations to determine the impact of the DETA on the instructional practices of participants over time. If you have any questions or comments regarding this report, please contact **me at (754) 321-2470 or Dr. Cary Sutton, Director, Research Services at (754) 321-2500.**

FT/KAB/COS:dwv

cc: Senior Management
Area Directors
Principals

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
OFFICE OF THE DEPUTY SUPERINTENDENT
CURRICULUM & INSTRUCTION/STUDENT SUPPORT

February 27, 2004

TO: Frank Till
Superintendent of Schools

FROM: Earlean C. Smiley, Ed.D., Deputy Superintendent
Curriculum & Instruction/Student Support

SUBJECT: **DIGITAL EDUCATION TEACHER ACADEMY (DETA)**

RECOMMENDATION: The Director of the Customer Staff Development Services Department of Curriculum & Instruction/Student Support will continue the transition to focusing on whole school training as the priority for the DETA. Schoolwide implementation of the DETA will maximize program impact on participants' abilities to integrate technology into the classroom and minimize negative factors identified in this report: school infrastructure, school climate, and administrative support. By April 2004, the Director of Customer Staff Development Services will develop a schoolwide integration plan that emphasizes consistency across sites and addresses the following factor.

RESPONSE: The recommendations are aligned with the original goals and objectives of the DETA. To fulfill these recommendations, the timeline of April 2004 for a school-wide integration plan will need to be changed to June 2004 to gain the necessary support and approvals. In addition, these recommendations need the full support of Senior Management, Area Office Staff and Principals and cannot be fulfilled unless DETA becomes a priority program.

SUB-RECOMMENDATION: *Participating schools.* By May 2004, Instructional Technology Specialists will identify schools available to implement DETA on a schoolwide basis to prioritize their engagement and ownership of the process.

RESPONSE: To determine participating schools, other input besides the Instructional Technology Specialists will need to be obtained to identify schools ready to implement DETA. Input will be needed from the Principals, Area Office Staff and Curriculum staff. In addition, data from the Star Survey, which was completed by each school as part of their school improvement planning process, will give valuable insight into the readiness of the school to participate.

SUB-RECOMMENDATION: *Technology support.* Support staff shall be identified to ensure adequate technology support and access for teachers and students at DETA schools. Efforts shall be made to identify a staff member at each DETA school to provide technology support; however, if not available, then a technology support person shall be identified from existing district, area, or Innovation Zone staff to provide support to multiple DETA schools.

RESPONSE: The identification of a staff member at each DETA school or a technology support person from existing district, area or Innovation Zone staff will need to be determined by Principals, Area or District Administrators or other appropriate supervisors. Input will provide the consensus needed to select the most appropriate individual. Once a staff member at each DETA school is identified, they will be required to attend a specially designed workshop for this target audience to assist them in supporting the program. It is recommended that a stipend be paid to school-based teachers who have this responsibility if it is an additional task. Additional district staff Instructional Technology Specialists will also be needed to provide the on-site mentoring, coaching and support as more schools complete DETA.

SUB-RECOMMENDATION: *Targeted use of technology.* A mechanism shall be developed to ensure the targeted use of technology in DETA schools. A lead contact person at each school shall be identified to monitor the targeted use of technology in the classrooms through regular classroom visitations and the use of observation rubrics (pre/post-assessments). Procedures shall include periodic classroom visitations by principals and assistant principals to reinforce the targeted use of technology in instruction.

RESPONSE: To assist Principals and Assistant Principals with monitoring the use of technology at a school site, a DETA for Administrators course will be offered beginning in the summer of 2004. This course, which is recommended for all Principals who will be participating in a school-wide implementation of DETA, will provide observation rubrics, video examples of effective integration of technology into curriculum, and an overview of role of Principal leadership in the success of the DETA.

SUB-RECOMMENDATION: *Curriculum.* A clear alignment between curriculum and technology shall be established in each school whereby integrating technology is built into the curriculum, which can be used as a model for integrating technology across the district.

RESPONSE: During DETA training, teachers are instructed in the process of integrating technology into existing curriculum and given numerous examples including curriculum maps and content aligned with the Sunshine State Standards. Further, each participant designs and develops a technology integration project related to his/her own classroom. When a school participates in DETA, this strategy promotes cross-curricular planning and increases the opportunity for interdisciplinary units of study. Thus, the school culture embraces technology integration and the alignment becomes part of standard daily practice.

SUB-RECOMMENDATION: *Outcomes.* Measurable benchmarks should be identified so that schools can determine their degree of progress toward seamless technology integration with a sufficiently supportive infrastructure and school culture/climate to assure self-sustainability.

RESPONSE: The DOE Star Chart, which is used by each school as part of the school improvement process, provides a rubric from which schools can determine their degree of progress in the areas of: technology administration and support, technology capacity, educator competency and professional development, learners and learning and accountability. While the Star Chart provides a guideline, schools need to develop measurable benchmarks based on STAR survey results to assist them in reaching the next level of integration.

SUB-RECOMMENDATION: *Implementation.* Implementation of the schoolwide DETA model shall start in August 2004.

RESPONSE: The school-wide DETA model is already being implemented in several schools and will continue to be implemented provided the necessary contracts and resources are approved.

For future studies examining the impact of the DETA on the instructional practices within the classroom should be included. The Director of Research Services will ensure that the evaluation design includes a pre and post assessment of classroom observations to determine the degree of implementation over time.

ECS/FV:shk
Attachment

DETA-Recomm/memo.doc

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
RESEARCH, EVALUATION, ASSESSMENT & BOUNDARIES

Katherine Blasik, Ph.D., Assistant Superintendent

Telephone: (754) 321-2470 **Facsimile: (754) 321-2721**

March 9, 2004

TO: Frank Till
Superintendent of Schools

FROM: Katherine Blasik, Ph.D., Assistant Superintendent
Research, Evaluation, Assessment & Boundaries

SUBJECT: **RESPONSE TO DIGITAL EDUCATION TEACHER ACADEMY EVALUATION REPORT**

Recommendation 2. For future studies examining the impact of the Digital Education Teacher Academy (DETA) on the instructional practices of participants, the Director of Research Services will take steps to include pre- and post-assessments of classroom observations in the evaluation design to determine the degree of program impact over time.

Response. By April 2004, the Director of Research Services will recommend to the Director of Customer Staff Development Services to include operational provisions for conducting classroom observations of teachers prior to participation in the DETA. This program component will serve as a pre-assessment to determine the extent that participants integrate technology into classroom practice. A post-assessment of teachers' instructional technology abilities after all DETA activities are completed will also be required to determine the degree of program impact on participants' pedagogical practices over time. Research Services will provide support to the Customer Staff Development Services Department to develop a rubric for observing DETA participants. The inclusion of a classroom observation pre-assessment will be dependent upon the availability of operational resources and a DETA provision for identifying program participants prior to participation.

FT/KAB/COS:dwv

The School Board of Broward County, Florida

Digital Education Teacher Academy
Evaluation Report

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Dr. Joel Levine, Evaluator

March 2004

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Digital Education Teacher Academy

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The School Board of Broward County, Florida

Digital Education Teacher Academy
Program Evaluation

Executive Summary

The Digital Education Teacher Academy (DETA) began in Summer 2002 as a collaboration between Broward County Public Schools (BCPS) and the Teaching and Leadership Center at Florida Atlantic University (FAU). That summer, 136 teachers received staff development that enabled them to integrate technology into their classroom practices. During this initial phase of training (DETA 1), teachers were trained to use technology in their classrooms through pedagogy, curriculum-based projects, hands-on use of technology tools (Atomic Learning, Inspiration) and web-based curriculum content programs (Riverdeep). The course outcomes and activities incorporated the National Educational Technology Standards (NETS), and the Florida Sunshine State Standards. During the 2002-03 school year, participating teachers received direct classroom support from six teachers on special assignment (Instructional Technology Specialists) working in the Customer Staff Development Services Department of Curriculum & Instruction/Student Support.

The second course offering in this project (DETA 2) was implemented during Summer 2003 and was designed to train teachers to use technology for: (a) data driven decision-making for updating instruction and curriculum; and (b) student assessment, including non-traditional assessment, electronic portfolio, multimedia projects, websites, and video to evaluate student learning, online learning, and collaborative projects.

Cost Impact

Funding for DETA came from several BCPS sources. Total project expenditures for DETA since inception totaled $538,298. Expenditures included tuition for participants and FAU instructor fees ($403,882), curriculum software for participants ($117,917), and expenses for two program evaluations ($16,500). In addition, Title II (Section D-Enhancing Education Through Technology) federal funds provided additional funding of $216,550 to support six teachers conducting instructional follow-up activities and classroom observations for all DETA participants. The cost per participant (excluding evaluation expenses) was also calculated based on the number of participants enrolling in FAU for which tuition was paid. For the initial DETA course in Summer 2002, the cost per participant (n=136) totaled $717. After the initial DETA 1 course, negotiations with FAU resulted in lower tuition costs for participants, which lowered the cost per participant (n=226) to $578 for the period from January 2003 to June 2003. For the time period from July 2003 to December 2003, the cost per participant (n=435) increased to $678 due to a rise in tuition and the purchase of additional curriculum materials.

Purpose of the Evaluation

The evaluation study described herein examined: (a) The impact of the first DETA 1 staff development program and the classroom support for the pedagogical practices of the teachers, (b) the factors that either facilitated or blocked the integration of technology into the curriculum during the 2002-03 school year, and (c) the curricular structure of the first DETA 2 course and the perceptions of the participants regarding the course and its impact on their teaching practices. The following research questions are addressed in this report:

1. How has the DETA been developed and what has been the process of identifying, training, and supporting the teachers that have participated in the Academy? What are the plans for furthering the goals of the Academy?
2. What were the factors that either facilitated or blocked the implementation of the NETS to create learning environments that integrate powerful uses of technology?
3. What was the impact of DETA 1 and the subsequent support services on the pedagogical practices of the teachers?
4. What were the perceptions of participants in DETA 2 of the format, content, and delivery of the instructional activities?
5. What was the perceived knowledge, skill, and resource information benefits for participants in the DETA 2 activities?

Methods

This report is primarily descriptive in nature and has been designed as a case study. A combination of approaches was used to collect data to answer the questions posed in this report. Interviews were conducted with DETA staff to obtain background information and to obtain the observations of the Instructional Technology Specialists who provided on-going support to participants regarding the degree of classroom implementation of the NETS. Surveys were administered to the teachers who participated in the initial DETA 1 course, after the end of their first year of implementation, and to the teachers who participated in the DETA 2 activities following the completion of the course. Focus group and telephone interviews were conducted to gather teacher input regarding the quality of the courses, their degree of classroom implementation, and the factors that enabled or blocked their classroom implementation.

Summary and Conclusions

The results of this evaluation effort indicate that the Digital Education Teacher Academy, through both DETA 1 and DETA 2 courses, as well as the in-service support provided by the Instructional Technology Specialists, has positively impacted the knowledge and abilities of the participants regarding the incorporation of technology into their classroom practices. There is also support for the conclusion that there has been a favorable impact on the daily classroom activities and pedagogical approaches used by these participants.

The primary factors that have affected the ability of the participants in the DETA to translate their new knowledge and skills into changes in their classroom practices have been found to be primarily school site specific. These factors have been identified as: (a) school infrastructure, including the availability of appropriate technology and technical support; (b) school climate, or the schoolwide emphasis on technology; and (c) administrative support, including the provision for adequate time for training and planning.

DETA 1 teachers substantially agreed (85% or more, *n*=49) that as a result of their participation in the DETA they were able to meet the six National Educational Technology Standards and impact the daily activities and pedagogical approaches used in their classrooms. However, site visits by Instructional Technology Specialists indicated that while teachers perceived they had gained the technology abilities aligned to National Educational Technology Standards, many had not been able to translate these abilities into actual classroom practice.

Factors identified by participants as facilitating incorporation of technology into daily classroom practices included the availability of equipment/computer laboratories, and training and support, not only in terms of DETA training and support, but also the support received from school faculty and administration. Of DETA 1 participants, 60% (*n*=35) to 76% (*n*=45) responded favorably towards the technology support received and the access to technology in their classroom. Conversely, approximately one-third of participants indicated access to technology for student use (32.8%, *n*=19), access to technology for classroom presentation (37.3%, *n*=22), and technology support from their school (34.5%, *n*=20) as inadequate. The primary factors mentioned as blocking the incorporation of technology into the daily classroom practices of teachers were unavailable or inadequate equipment (35.6%, *n*=21), followed by lack of time (27.1%, *n*=16), and infrastructure issues, including Internet access (13.6%, *n*=8) and support, both technical (10.2%, *n*=6) and administrative (3.4%, *n*=2).

Similarly, 55% (*n*=12) to 82% (*n*=18) of DETA 2 participants identified lack of time, lack of access to technology, lack of training and support, and the lack of a school emphasis on technology, as barriers to integrating technology into the classroom. However, participants responded favorably toward the DETA 2 course, indicating that the course was appropriate to their needs and the objectives of the DETA 2 training. An overall pattern of teacher self reports of satisfaction was revealed regarding participants' training, as well as their willingness to adapt their instructional practices to reflect their training and adhere to national technology standards and practices for the classroom. There were consistent increases in the number of participants reporting: (a) new learning as a result of their participation, and (b) a willingness to implement that training in the classroom practices of planning, teaching, and assessment.

The Customer Staff Development Services Department has responded to findings highlighted in this report by changing their training priorities, away from training groups of teachers drawn from across the county based on teacher desire, to a focus on whole school training where the administrative support and school infrastructure can be assured through the request and ownership of the school leadership and their active participation in the process. The training can then be aligned with the needs of the school leadership to change the school climate to one where technological innovation is integral to the school culture.

Recommendations

1. The Director of the Customer Staff Development Services Department of Curriculum & Instruction/Student Support will continue the transition to focusing on whole school training as the priority for the DETA. Schoolwide implementation of the DETA will maximize program impact on participants' abilities to integrate technology into the classroom and minimize negative factors identified in this report: school infrastructure, school climate, and administrative support. By April 2004, the Director of Customer Staff Development Services will develop a schoolwide integration plan that emphasizes consistency across sites and addresses the following factors:
   - *Participating schools*. By May 2004, Instructional Technology Specialists will identify schools available to implement DETA on a schoolwide basis to prioritize their engagement and ownership of the process.
   - *Technology support*. Support staff shall be identified to ensure adequate technology support and access for teachers and students at DETA schools. Efforts shall be made to identify a staff member at each DETA school to provide technology support; however, if not available, then a technology support person shall be identified from existing district, area, or Innovation Zone staff to provide support to multiple DETA schools.
   - *Targeted use of technology*. A mechanism shall be developed to ensure the targeted use of technology in DETA schools. A lead contact person at each school shall be identified to monitor the targeted use of technology in the classrooms through regular classroom visitations and the use of observation rubrics (pre/post-assessments). Procedures shall include periodic classroom visitations by principals and assistant principals to reinforce the targeted use of technology in instruction.
   - *Curriculum*. A clear alignment between curriculum and technology shall be established at each school whereby integrating technology is built into the curriculum, which can be used as a model for integrating technology across the district.
   - *Outcomes*. Measurable benchmarks should be identified so that schools can determine their degree of progress toward seamless technology integration with a sufficiently supportive infrastructure and school culture/climate to assure self-sustainability.
   - *Implementation*. Implementation of the schoolwide DETA model shall start in August 2004.

2. For future studies examining the impact of the DETA on the instructional practices of participants, the Director of Research Services will take steps to include pre- and post-assessments of classroom observations in the evaluation design to determine the degree of program impact over time.

The School Board of Broward County, Florida

Digital Education Teacher Academy
Evaluation Report

Introduction

The Digital Education Teacher Academy (DETA) began in Summer 2002 as a collaboration between Broward County Public Schools (BCPS) and the Teaching and Leadership Center at Florida Atlantic University (FAU). That summer, a total of 136 teachers received training that enabled them to integrate technology into their classroom practices. During this initial phase of training (DETA 1), teachers were trained to use technology in their classrooms through pedagogy, curriculum-based projects, hands-on use of technology tools (Atomic Learning, Inspiration) and technology-based content programs (Riverdeep). The course outcomes and activities incorporated the National Educational Technology Standards (NETS), and the Florida Sunshine State Standards. During the 2002-03 school year, participating teachers received direct classroom support from six teachers on special assignment (Instructional Technology Specialists) working in the Customer Staff Development Services Department of Curriculum & Instruction/Student Support.

The second course in this project (DETA 2) was held during Summer 2003 and was designed to train teachers to use technology for: (a) data driven decision-making for updating instruction and curriculum; and (b) student assessment, including non-traditional assessment, electronic portfolio, multimedia projects, websites, and video to evaluate student learning, online learning, and collaborative projects.

Literature Review

Teachers are facing increasing pressure to integrate technology into their classroom activities to prepare their students to meet the needs of an increasingly technology dependent culture. National education standards such as the National Education Technology Standards for Students (ISTE, 1998) and the National Education Technology Standards for Teachers (ISTE, 2000), as well as discipline specific standards such as the National Science Education Standards (NRC, 1996), The Principles and Standards for School Mathematics (NCTM, 2000) and the National Standards for Social Studies Teachers (NCSS, 2000), recommend the integration of instructional technology into the practice of teaching. Teachers, however, have not rushed to change their classroom practices or pedagogical methodologies to seamlessly integrate the use of instructional technology (Wetzel, 2001). Clement and Gardner (1999), in their survey of technology services in Broward County, found that, "at each school level, teachers generally fall into one of two groups: Teachers either do not use computers at all, or they use computers very often."

Research by the Office of Technology Assessment (1995) indicates that time is the greatest barrier to the integration of technology into teachers' classroom practices and pedagogical change. In his study of teacher preparation for technology integration, Mills, (2001) concluded that, "Proficiency in the use and operations of computer technology was not necessarily a

distinguishing attribute of high quality technology integration . . . . These results clearly demonstrated that technology training activities . . . . need to focus more on instructional strategies and methods to integrate technology in the classroom than on training activities to increase skills in the operation of computer hardware and use of software applications."

Teachers' resistance to change is related to their perceptions regarding the influence of instructional technology on their preparation, beliefs, and values. These issues include concerns regarding technical ability and proficiency with instructional technology, along with organizational culture and climate influences that are beyond the control of the teacher (Dexter, Anderson, & Becker, 1999). There is an inherent resistance to change from what is comfortable and familiar. The effectiveness of any organizational change attempt depends as much on how the change is implemented as on what change is implemented. The process of implementing new elements in an organization is fundamentally a problem of change management (Nadler, 1981).

Herman and Stringfield (1997), in their study of ten reform programs, concluded that schools are much more successful at implementing reform programs in the context of a supportive environment, both within the school and the district. In a study of 24 restructuring schools, Newman, King & Rigdon (1997) found that strong external accountability can hinder the development of organizational capacity to adapt and implement the new structure. They concluded that "when highly prescriptive standards connected to high-stakes consequences are mandated by external authorities, this can deny school staff both the 'ownership' or commitment and the authority it needs to work collaboratively to achieve a clear purpose for student learning" (Newman, et al., 1997).

Lynne Shrum, immediate past president of the International Society of Technology in Education, states that:

> First and foremost, educators want students to learn. It is certainly not enough to tell educators that they need to use the boxes and wires that have invaded schools because they are expensive or because students need to know how to use the latest widget. If it's clear that technological tools will help them achieve that goal, educators will use those tools (Schrum, 2000), and that: In order to successfully infuse technology into their classrooms, teachers must have the support of all stakeholders in the educational community.

Shibley (2001), in his discussion of technology use and staff development, reports that school districts spend in excess of $5 billion annually on technology and concludes that "school officials need to wake up to reality and spend up to 30 percent of the monies set aside for technology on staff development."

Program Description

The Digital Education Teachers Academy (DETA) began in Summer 2002, with the first DETA 1 class. The course was designed in collaboration with the Teaching and Leadership Center at Florida Atlantic University as a graduate level course (three credit hours) held over a five-day time span. The course provided participants with opportunities to explore technology to

improve student achievement in the core curriculum areas; learn strategies for integrating technology that can be incorporated into daily practice; and learn how to use new technologies such as internet-based curriculum and digital tools. Participants received a digital toolbox of resources and follow-up support. Courses were held Monday through Friday during the summer and on Saturdays during the school year. Candidates were required to have intermediate technology skills and be willing to participate in a follow-up program that included support for integrating the learning into classroom practice.

The DETA 2 course was a second graduate level course (three credit hours) also held over a five-day time span. It was designed as a follow-up of the DETA 1 course to provide participants with the opportunity to explore more advanced strategies for technology integration into the curriculum, and design and complete a technology-enhanced project using multimedia. In addition, participants examined the role of data-driven instruction and its impact on curriculum and delivery. They investigated the role of technology in collecting, analyzing, and interpreting student achievement data to shape student progress and performance. Like DETA 1, courses were held Monday through Friday during the summer and on Saturdays during the school year. DETA 2 participants were required to have completed DETA 1. All tuition, fees, and supplies were paid by BCPS. Teachers who successfully completed the course received three graduate credits from FAU.

Cost Impact

Funding for DETA came from several BCPS sources. The original DETA pilot program (DETA 1) held during Summer 2002 was funded by the Public School Technology Fund of BCPS in the amount of $102,483. The Teacher Technology Staff Development Fund provided subsequent funding in the amount of $1.6 million for DETA and additional technology integration staff development programs as outlined in Section 8 of the District Information Technology Plan. Table 1 provides a summary of project expenditures specific to DETA. Total project expenditures for DETA since inception totaled $538,298. Expenditures included tuition for participants and FAU instructor fees, curriculum software for participants, and expenses for two program evaluations. In addition, Title II (Section D-Enhancing Education Through Technology) federal funds provided additional funding of $216,550 to support six teachers conducting instructional follow-up activities and classroom observations for all DETA participants.

Table 1
DETA Expenditures

Item	Summer 2002[a]	January 2003 to June 2003	July 2003 to December 2003	Total expenditures
Tuition/instructional fees	$77,248	$101,474	$225,160	$403,882
Curriculum software	$20,235	$29,229	$68,453	$117,917
Program evaluations	$5,000	$11,500		$16,500
Total	$102,483	$142,203	$293,613	$538,298

[a]Funding provided by Public School Technology Fund.

Cost per participant (excluding evaluation expenses) was also calculated for the three time periods presented in Table 1. The number of participants used for this calculation represents the number of teachers enrolling in FAU for which tuition was paid, and includes a duplicated count for DETA 2 participants. For the initial DETA 1 course in Summer 2002, the cost per participant (n=136) totaled $717. After the DETA 1 course in Summer 2002, negotiations with FAU resulted in lower tuition costs for participants, which lowered the cost per participant (n=226) to $578 for the period from January 2003 to June 2003. For the time period, July 2003 to December 2003, the cost per participant (n=435) increased to $678 due to a rise in tuition and the purchase of additional curriculum materials.

Purpose of the Evaluation

The evaluation study described herein examined the impact of the first DETA 1 staff development program held during Summer 2002 and the classroom support for the pedagogical practices of the teachers. The evaluation also endeavored to identify the factors that either facilitated or blocked the integration of technology into the curriculum during the 2002-03 school year. The study also examined the curricular structure of the first DETA 2 course held during Summer 2003 and the perceptions of the participants regarding the course and its impact on their teaching practices. The following research questions are addressed in this evaluation report:

1. How has the DETA been developed and what has been the process of identifying, training, and supporting the teachers that have participated in the Academy? What are the plans for furthering the goals of the Academy?
2. What were the factors that either facilitated or blocked the implementation of the NETS to create learning environments that integrate powerful uses of technology?
3. What was the impact of DETA 1 and the subsequent support services on the pedagogical practices of the teachers?
4. What were the perceptions of participants in DETA 2 of the format, content, and delivery of the instructional activities?
5. What was the perceived knowledge, skill, and resource information benefits for participants in the DETA 2 activities?

Methods

This report is primarily descriptive in nature and has been designed as a case study. A combination of approaches was used to collect data to answer the questions posed in this report. Interviews were conducted with DETA staff to obtain background information and to obtain the observations of the Instructional Technology Specialists, who provided on-going support to participants regarding the degree of classroom implementation of the NETS. Focus group (n=21) and telephone interviews (n=6) were conducted to gather teacher input regarding the quality of the courses, their degree of classroom implementation, and the factors that enabled or blocked their classroom implementation.

A follow-up survey was administered to the teachers that participated in the initial DETA 1 class during Summer 2002 and who received support from the Instructional Technology Specialists

during the 2002-03 school year. The survey was administered in early June 2003 to 114 of 138 DETA 1 participants. Surveys were returned by 59 teachers for a response rate of 51.8%. A survey was also administered to 22 teachers who participated in DETA 2 activities following the completion of the course. Surveys were returned by all DETA 2 teachers for a response rate of 100% (*n*=22).

Participants

The characteristics of DETA participants were determined by examining demographic data provided by BCPS. Participation levels, teaching experience, demographic characteristics, and school distributions were examined in detail. A total of 760 BCPS staff members have participated in DETA since its inception. Table 2 provides a summary of participation levels for DETA 1 and DETA 2 for 2002-03 and the first semester of 2003-04. A total of 757 BCPS staff members participated in DETA 1 during this time period. During Summer 2003 and the first semester of 2003-04, 40 staff members participated in DETA 2. Three teachers that participated in DETA 2 had not previously taken DETA 1.

Table 2
Summary of Program Participation

Date of participation	DETA 1	DETA 2[a]
Summer 2002	136	–
January 2003 to June 2003	226	–
July 2003 to December 2003	395	40
Total	757	40

[a] Three participants participated in only DETA 2. Dashes indicate no participants.

Table 3 presents the teaching experience of all DETA participants. Almost half of DETA 1 participants (47.6%, *n*=359) had more than 10 years of teaching experience, while one-third (33.9%, *n*=256) had 5 years or less of teaching experience. DETA 2 participants were equally divided between teachers with 6-10 years of experience (37.5%, *n*=15) and teachers with 10 or more years of experience (40.0%, *n*=16).

Table 3
Teaching Experience of Participating Teachers

	DETA 1[a]		DETA 2	
Teacher experience	*n*	%	*n*	%
5 years or less	256	33.9	9	22.5
6-10 years	140	18.5	15	37.5
More than 10 years	359	47.6	16	40.0
Total	755	100.0	40	100.0

Note. Three participants participated in only DETA 2.
[a]The teaching experience of two participants could not be determined.

Participants' demographics by gender and race/ethnicity are presented in Table 4. Analysis by gender revealed that program participants were primarily female in both DETA 1 (82.0%, *n*=619)

and DETA 2 (90.0%, *n*=36). In DETA 1, 61.2% (*n*=462) of participants were White, 27.7% (*n*=209) Black, 9% (*n*=68) Hispanic, 1.5% (*n*=11) Asian, and .7% (*n*=5) Native American. Similarly, in DETA 2, most participants were White (77.5%, *n*=31), followed by Black (12.5%, *n*=5), Hispanic (7.5%, *n*=3), and Asian (2.5%, *n*=1) participants.

Table 4
Participant Demographics by Gender and Race/Ethnicity

	DETA 1[a]		DETA 2	
Demographic	*n*	*%*	*n*	*%*
Female	619	82.0	36	90.0
Male	136	18.0	4	10.0
Asian	11	1.5	1	2.5
Black	209	27.7	5	12.5
Hispanic	68	9.0	3	7.5
Native American	5	.7	–	–
White	462	61.2	31	77.5
Total	755	100.0	40	100.0

Note. Three participants participated in only DETA 2. Dashes indicate no participants.
[a]The gender and race/ethnicity of two participants could not be determined.

Participants by Level and Location

Table 5 shows the distribution of participants by school level/type. The largest percentage of participants was elementary school teachers in both DETA 1 (36.3%, *n*=274) and DETA 2 (40.0%, *n*=16). Similarly, the next highest percentages of participants in both DETA courses were high school teachers, followed by middle school teachers. Less than 10% of DETA 1 (9.8%, *n*=74) and DETA 2 (5.0%, *n*=2) participants were BCPS district staff members.

Table 5
Summary of DETA Participants by Level and Staff Type

	DETA 1[a]		DETA 2	
Participant type	*n*	*%*	*n*	*%*
Elementary	274	36.3	16	40.0
Middle	155	20.5	9	22.5
High	217	28.7	10	25.0
Centers	35	4.6	3	7.5
District[b]	74	9.8	2	5.0
Total	755	100.0	40	100.0

Note. Three participants participated in only DETA 2. Percentages may not total 100% due to rounding.
[a]The school level/participant type of two participants could not be determined. [b]Four district staff members represent the four administrative areas (1 each).

The area distribution of participants is presented in Table 6. DETA 1 teachers were somewhat evenly distributed in three BCPS administrative areas: North Area (31.3%, *n*=236), South Area (24.9%, *n*=188), and South Central Area (20%, *n*=151). Only 14.0% (*n*=106) of DETA 1

teachers were from the North Central Area. DETA 2 teachers were evenly distributed between the four administrative areas with 9-11 participants representing each area.

Table 6
Participants by Area

	DETA 1[a]		DETA 2	
Area	*n*	%	*n*	%
North Area	236	31.3	11	27.5
North Central Area	106	14.0	9	22.5
South Area	188	24.9	9	22.5
South Central Area	151	20.0	9	22.5
District staff[b]	74	9.8	2	5.0
Total	755	100.0	40	100.0

Note. Three participants participated in only DETA 2.
[a]The administrative area of two participants could not be determined. [b]Four district staff members represent the four administrative areas (1 each).

In addition to administrative areas, schools are also organized into 26 Innovation Zones. Each Innovation Zone contains at least one high school with feeder elementary and middle schools. Teacher participation by Innovation Zone is presented in Table 7. DETA 1 teachers came from all 26 Innovation Zones. At least one DETA 2 participant came from 17 of 26 Innovation Zones. The Innovation Zones most represented in DETA 1 included Blanche Ely (9.0%, *n*=68), Monarch (8.1%, *n*=61), Dillard (8.1%, *n*=61), and Miramar (7.4%, *n*=56). The number of participants by school is available upon request from the Director of Customer Staff Development Services.

Table 7
Participants by Innovation Zone

	DETA 1[a]		DETA 2	
Innovation Zone	*n*	%	*n*	%
Boyd Anderson	36	4.8	4	10.0
Coconut Creek	35	4.6	3	7.5
Cooper City	19	2.5	2	5.0
Coral Springs	13	1.7	–	–
Cypress Bay	20	2.6	2	5.0
Deerfield Beach	23	3.0	2	5.0
Dillard	61	8.1	1	2.5
Blanche Ely	68	9.0	–	–
Everglades	8	1.1	1	2.5
Charles Flanagan	32	4.2	2	5.0
Fort Lauderdale	25	3.3	4	10.0
Hallandale	13	1.7	–	–
Hollywood Hills	29	3.8	1	2.5
McArthur	12	1.6	–	–

(*table continues*)

Table 7 (*continued*)

Innovation Zone	DETA 1[a]		DETA 2	
	n	%	*n*	%
Miramar	56	7.4	3	7.5
Monarch	61	8.1	–	–
Northeast	7	0.9	1	2.5
Nova	24	3.2	–	–
Piper	39	5.2	4	10.0
Plantation	17	2.3	1	2.5
South Broward	19	2.5	–	–
South Plantation	11	1.5	–	–
Stoneman Douglas	22	2.9	3	7.5
Stranahan	11	1.5	1	2.5
Taravella	14	1.9	3	7.5
Western	6	0.8	–	–
Innovation Zone total	680	90.2	38	95.0
District staff members[b]	74	9.8	2	5.0
Total participants	755	100.0	40	100.0

Note. Three participants participated in only DETA 2. Dashes indicate no participants. The number of participants by school is available by request from the Director of Customer Staff Development Services.
[a]The Innovation Zone of two participants could not be determined. [b]Four district staff members represent the four administrative areas (1 each).

Findings

1. *How has the DETA been developed and what has been the process of identifying, training, and supporting the teachers that have participated in the Academy? What are the plans for furthering the goals of the Academy?*

DETA 1. The Digital Education Teacher Academy (DETA) was launched in Summer 2002 with 136 elementary, middle and high school teachers from all 26 Innovation Zones in the district. Teachers attended a fast track (one week) graduate level course at FAU/Davie where they explored strategies for integrating technology into their curriculum. Teachers received three graduate credits upon completion of the course. The course objectives were consistent with the purposes and goals of Section 2401 of the *No Child Left Behind Act* of 2001 and was aligned with national, state, and district content and technology standards.

Teachers were recruited from throughout the district (see Table 7), and were required to have intermediate technology skills and a willingness to use technology to improve student achievement in reading, mathematics, and science. These requirements were listed as prerequisites for the course and were accepted on a self-report basis. Participants were grouped into five classes of approximately 25 students each. Classes consisted of five days of full time instruction, interaction, and project work. This course has subsequently come to be known as DETA 1 and has been continuously updated in response to participant input. An evaluation of

the first course was conducted in Fall 2002 (Keating & Levine, 2002). This evaluation concluded that:

> The design and implementation of (the original) DETA training was a success. Curriculum was viewed as strong, clear, and pedagogically sound. Instructional and technical support was highly rated and technology resources were very adequate to provide a comprehensive and high-quality intensive hands-on experience to all participants. The participants were very appreciative for the opportunity to obtain additional knowledge, skills, new technologies and to develop useful technology based lessons and materials. A diverse group of teachers representative of district demographics also stated that they highly valued the opportunity to receive graduate credit for their technology training. Teachers reported that they felt well prepared to return to their classrooms and begin their own implementation projects based on the training provided. Participants expressed a strong willingness and desire to participate in a more advanced follow-up training course. Participants were positive about sharing their high-quality materials with colleagues in their school and district. They said that a mini-conference would enable districtwide showcasing and sharing. They also indicated that the establishment of a listserv or a web page would foster continued collaboration among all course participants.

Instructional Technology Specialists worked with participants to overcome barriers to technology integration through a combination of activities including school visits, after-hours monthly learning community meetings, and creation of a Blackboard discussion area for DETA participants. They also recruited teachers to contribute technology-enhanced lessons for the Customer Staff Development Services Department's web site and develop sample lessons enhanced with technology skills. Instructional Technology Specialists planned DETA sessions for administrators, and served as BCPS instructors for the DETA.

DETA 2. The Digital Education Teacher Academy 2 (DETA 2) is a follow-up program to the original DETA 1 program. Twenty-two DETA 2 teachers attended a weeklong fast track graduate level course in Summer 2003, which was taught at Tamarac Elementary School. These teachers had all participated or were co-participating in DETA 1 training classes. Teachers received three graduate credits upon completion of the course.

Prior to offering the DETA 2 course, teams of specialists from both the district office and school sites met to develop the course curriculum. These teams followed the DACUM (Developing a Curriculum) process, which utilizes an occupational analysis involving individuals with reputations for being the "top performers" in their jobs. These individuals work under the guidance of a trained facilitator for two days to develop a DACUM Research chart, which represents the duties and tasks performed by successful individuals. The general knowledge and skills required by successful workers are identified, which then leads to the development of an appropriate curricular framework.

The DETA 2 course was designed to infuse applied learning resources (Riverdeep Internet based curriculum, Inspiration, Atomic Learning, Data Warehouse, Compass Learning, Virtual Counselor) into inquiry based learning projects. Digital still cameras, digital video cameras, digital editing program applications were technology tools used in this course for digital image

capture/editing/production. Emphasis was placed on the process of implementing a technologically enriched curriculum such that learner outcomes could be evaluated with customized rubrics from a number of online resources.

Curriculum practices were chosen and highlighted for the development of the learning objectives. Teachers chose projects and resources for their areas of expertise, grade levels, student needs, and classroom environments. The level of DETA 2 course support was in excess of that found in the everyday classroom environment-media specialists, resource specialists and a highly qualified, motivated, and experienced instructor facilitated the DETA 2 experience in an enriched environment designed for graduate credit. Participant enthusiasm for implementing their training involving technology standards was high, with the recognition that professional development would be linked to impact assessment of student achievement through tracking student progress in the Virtual Counselor program. There was a stated recognition by the participants that professional development activities such as DETA 2 directly impacted what happened in their classroom through measurable changes in student achievement.

The DETA 2 course focused on the use of technology for student assessment, as an effective tool for data access, data analysis, data management, and the presentation of authentic technology mediated learning outcomes. Teachers learned to access and analyze student achievement data to make decisions about quality instruction, track student progress, and incorporate alternative assessment strategies to obtain a holistic picture of student learning.

Throughout the 2003-04 school year the participating teachers are committed to employing their DETA 1 and 2 skills to develop a portfolio that highlights the benefits of technology in maximizing student learning and higher order thinking skills. Follow-up activities planned during the 2003-04 academic year focus on integrating technology and assessment into the curriculum of the participants. Workshop participants receive assistance from Instructional Technology Specialists, mentors and coaches. District Curriculum Specialists assist with portfolio creation, classroom observation, and development of NETS based lesson plans. Teachers also participate in vendor sponsored special topic sessions at after school meetings where they:

- Learn digital image capture/editing/production.
- Gain experience utilizing classroom instructional tools and utilities, both desktop-based programs like Inspiration and Compass Learning, as well as those accessible online such as Atomic Learning and Riverdeep.
- Track student progress with the Virtual Counselor program, which is a tool to track student progress, while interfacing with the Data Warehouse databases belonging to BCPS.

At the end of the 2003-04 school year participants will be recognized for their accomplishments in the DETA. A district-sponsored conference will showcase participants' accomplishments for all district teachers.

The Customer Staff Development Services Department has been utilizing the Plan, Do, Study, Act (PDSA) process drawn from Total Quality Management (TQM) in order to obtain feedback

from participants and continuously improve the services of the DETA. A part of this process has been the recognition that support from the school in terms of technology, leadership, and focus has been a key ingredient in the success of its graduates in their efforts to integrate technology into their classroom practices. This observation is supported by the results of this evaluation effort and findings from the literature review.

The observation that schoolwide support is a key ingredient to the success of DETA, and a request by the new principal at Monarch High School to provide training for the entire school to infuse a technology focus into the school culture at the beginning, has prompted the Customer Staff Development Services Department to initiate a shift in priority to whole school training and support. Initially, each Area Office identified one school to participate in a whole school training initiative. The whole school approach started in Summer 2003 at Monarch High School and at Nob Hill and Broward Estates Elementary Schools. In 2003-04, efforts are underway to implement the whole school approach at Silver Shores Elementary, Tequesta Trace Middle, Blanche Ely High, Coconut Creek High, Everglades High, Miramar High, Pompano Beach High Schools, and in the Nova Innovation Zone. Principal initiation has been the primary factor in whole school selection and aligns with the research findings, which show that school leadership is a factor in successful implementation.

The Customer Staff Development Services Department has developed a DETA Learning Community for graduates of DETA 1 and 2. This effort involves monthly meetings open to all DETA graduates that provide a time for sharing of ideas and best practices, training in new applications and developments, and continuing to improve the process of fostering the incorporation of technology into classroom practices of BCPS teachers. The Customer Staff Development Services Department has also instituted a Virtual Technology Recognition Project to encourage teachers to submit their successful projects to share with other teachers across the district.

2. *What were the factors that either facilitated or blocked the implementation of the NETS to create learning environments that integrate powerful uses of technology?*

DETA 1. Surveys were administered to teachers (*n*=59) who participated in the initial DETA 1 course after the end of the first year of implementation and who received support from the Instructional Technology Specialists during the 2002-03 school year. A portion of the survey was based on a set of telephone interviews with DETA 1 participants (*n*=6) identified by the Customer Staff Development Services Department as having successfully or unsuccessfully incorporated technology into their classroom practices as a result of participation in DETA 1. These interviews identified a set of critical support issues that affected the degree of implementation of technology into teachers' classrooms. These issues formed the basis for this section of the survey, which was designed to determine the perceived degree of presence of these support factors.

Participants were asked the extent to which they received support (Strongly agree, Agree, Disagree, Strongly disagree, Don't know). Table 8 presents participants' perceived degree of support from DETA 1 staff. Seventy-six percent (*n*=45) of DETA 1 teachers agreed that they had

adequate support from the district Instructional Technology Specialists and that they had adequate access to technology for lesson preparation and classroom organization. Slightly less (65.5%, *n*=38) agreed that they had adequate access to technology for student use. Approximately 60% felt that they had adequate technology support from their school (*n*=35) and adequate access to technology for classroom presentation (*n*=35). Less than half (47.4%, *n*=27) agreed that they had adequate time to plan lessons with technology.

Table 8
Perceived Degree of Support of DETA 1 Participants

In integrating technology into my classroom practices I have had:	*n*	Percentage responding				
		SA	A	D	SD	DK
Adequate support from the district Instructional Technology Specialists.	59	15.3	61.0	11.9	6.8	5.1
Adequate access to technology for lesson preparation and class organization.	59	24.6	50.9	21.1	1.8	1.8
Adequate access to technology for student use.	58	17.2	48.3	17.2	15.5	1.7
Adequate technology support from my school.	58	27.6	32.8	20.7	13.8	5.2
Adequate access to technology for classroom presentation and demonstration use.	59	22.0	37.3	25.4	11.9	3.4
Enough time to plan the lessons that I want to present or supplement with technology.	57	14.0	33.3	40.4	8.8	3.5

Note. SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree, DK=Don't know. Percentages may not total 100% due to rounding.

The teacher follow-up survey also contained an open-ended question regarding factors at their school that facilitated the incorporation of technology into their daily classroom practices (see Table 9). The primary factor mentioned as facilitating incorporation of technology into the daily classroom practices of the teachers was the availability of equipment/computer laboratories (18.6%, *n*=11). This appears to be a necessary but not sufficient element to promote the use of technology in the classroom. The next factor mentioned in terms of frequency was training and support (10.2%, *n*=6), not only in terms of DETA training and support, but also the support received from their school faculty and administration (8.5%, *n*=5).

Table 9
Factors Reported by DETA 1 Participants as Facilitating the Incorporation of Technology (n=59)

Response category	*n*	*%*
Computer laboratory/equipment availability	11	18.6
DETA training and/or support	6	10.2
School faculty/staff support	5	8.5
Administrative support	5	8.5
Personal motivation and effort	3	5.1
Internet connection in classroom	1	1.7
Time available to plan	1	1.7

Note. Teachers could respond to more than one category.

Table 10 presents factors identified by DETA 1 participants as blocking the use of technology in the classroom. The primary factor mentioned as blocking the incorporation of technology into the daily classroom practices of the teachers was unavailable or inadequate equipment (35.6%, *n*=21). The second most common blocking factor was the lack of time (27.1%, *n*=16). Following these factors were infrastructure issues, including Internet access (13.6%, *n*=8) and support, both technical (10.2%, *n*=6) and administrative (3.4%, *n*=2).

Table 10
Factors Reported by DETA 1 Participants as Blocking the Incorporation of Technology (n=59)

Response category	*n*	*%*
Inadequate equipment/lack of availability	21	35.6
Lack of time	16	27.1
Lack of Internet access	8	13.6
Lack of technical support	6	10.2
Lack of administrative support	2	3.4

Note. Teachers could respond to more than one category.

Teachers were also asked what additional support they would request. The most common request for further support was additional training (18.6%, n=11), followed by suggestions for support groups (11.9%, *n*=7) and in-class assistance (e.g., demonstration lessons) (11.9%, *n*=7). Five teachers (8.5%) requested additional equipment support.

Instructional Technology Specialists. The Instructional Technology Specialists interviewed reported that, based on their school visitations, the primary factors that facilitated or blocked the successful incorporation of technology into the classroom practices of the teachers were school specific. These factors included infrastructure (availability of appropriate technology and technical support); school climate (e.g., A dominate focus on Florida Comprehensive Assessment Test preparation was a blocking factor, while a climate of technological innovation was a facilitating factor.); and administrative support (e.g., Provision of adequate time for training and planning through factors such as the use of substitutes and school scheduling).

DETA 2. The participants in DETA 2 training were asked to complete a post-course Technology Survey (*n*=22). A portion of this survey was designed to elicit participant input regarding the factors that they perceived as barriers (minor or major) to integrating technology into their instructional program. The results of this survey are summarized in Table 11. The primary barriers reported by teachers were time (81.8%, *n*=18), access to computer hardware (81.8%, *n*=18) or software (77.3%, *n*=17), access to technology at home (86.4%, *n*=19), and resources (77.3%, *n*=17). Sixty-eight percent (*n*=15) of respondents reported a lack of support in the areas of technical training and installation support as barriers. A tertiary barrier revolves around a lack of school emphasis on technology as evidenced by a lack of support for attending training (64.6%, *n*=14), the school not placing a priority on technology (59.1%, *n*=13) and not integrating technology into curriculum documents (54.6%, *n*=12). The only area perceived by a majority of the respondents (59.1%, *n*=13) as not being a barrier is a lack of knowledge about ways to integrate technology to enhance the curriculum. This result is an indicator of the success of the DETA training for these teachers and is probably not reflective of the teaching staff in general.

Table 11
Extent to Which DETA Factors Were Barriers to Integrating Technology in the Classroom as Reported by Participants (n=22)

Factor	Not a barrier		Minor barrier		Major barrier	
	n	%	*n*	%	*n*	%
Lack of time in school schedule for technology projects	1	4.5	9	40.9	9	40.9
Not enough/limited access to computer hardware	2	9.1	2	9.1	16	72.7
Students do not have access to the necessary technology at home	2	9.1	12	54.5	7	31.8
Not enough computer software	3	13.6	9	40.9	8	36.4
Lack of technology planning and resources	3	13.6	11	50.0	6	27.3
Lack of adequate technical support for technology projects	5	22.7	6	27.3	9	40.9
Not enough teacher training opportunities (including modeling and mentoring) for technology projects	5	22.7	6	27.3	9	40.9
Purchased software has not been installed	5	22.7	8	36.4	7	31.8
Hiring substitutes in order for teachers to attend training is discouraged	5	26.3	8	42.1	6	31.5
Technology integration is not a school priority	8	36.4	9	40.9	4	18.2
Use of technology not integrated into curriculum documents	9	40.9	10	45.4	2	9.1
Lack of knowledge about ways to integrate technology to enhance curriculum	13	59.1	5	22.7	2	9.1

3. *What was the impact of DETA 1 and the subsequent support services on the pedagogical practices of the teachers?*

Surveys were administered to teachers (*n*=114) who participated in the initial DETA 1 course after the end of the first year of implementation. Six survey questions were drawn directly from the National Educational Technology Standards (NETS) for teachers. These items were designed to determine the impact of the course on the classroom practices of the teachers (Strongly agree, Agree, Disagree, Strongly disagree, Don't know).

Table 12 presents teachers' responses related to the impact of DETA on classroom practices. The teachers responding to the survey substantially agreed (strongly agree/agree) that they were able to meet the six National Educational Technology Standards. Almost all respondents (93.2%, *n*=55) agreed that as a result of the DETA program, they had been able to use technology to enhance their productivity and professional practice. Eighty-five percent (*n*=49) or more of the respondents similarly agreed that the five remaining national standards positively impacted their classroom practices.

Table 12
Perceived Impact of DETA I on Teachers' Classroom Practices

As a result of the DETA program, I have been able to:	*n*	Percentage responding				
		SA	A	D	SD	DK
Acquire and use a sound understanding of technology operations and concepts.	59	25.4	62.7	6.8	–	5.1
Plan and design effective learning environments and experiences supported by technology.	58	19.0	65.5	10.3	3.4	1.7
Implement curriculum plans that include methods and strategies for applying technology to maximize student learning.	58	24.1	60.3	13.8	–	1.7
Apply technology to facilitate a variety of effective assessment and evaluation strategies.	58	19.0	65.5	13.8	–	1.7
Use technology to enhance my productivity and professional practice.	59	42.4	50.8	5.1	–	1.7
Understand and apply the social, ethical, legal and human issues surrounding the use of technology in PK-12 schools.	59	32.2	54.2	6.8	–	6.8

Note. SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree, DK=Don't know.

Table 13 presents teachers' responses related to the impact of DETA activities on teachers' classroom practices (Strongly agree, Agree, Disagree, Strongly disagree, Don't know). Teachers substantially agreed (strongly agree/agree) that they found the lessons learned (86.4%, *n*=51) and materials provided (84.8%, *n*=50) through the DETA 1 Summer 2002 course to be helpful. Respondents agreed to a lesser degree that they had been able to use the instructional pedagogies (67.2%, *n*=39) and online staff development tools (63.2%, *n*=36) learned to improve student achievement in the classroom.

Table 13
Perceived Impact of DETA 1 Activities on Teachers' Classroom Practices

In integrating technology into my classroom practices I have:	*n*	Percentage responding				
		SA	A	D	SD	DK
Been able to utilize the instructional pedagogies learned in the DETA to improve student achievement.	58	10.3	56.9	22.4	5.2	5.2
Been able to utilize the online staff development tools learned in the DETA to improve student achievement.	57	10.5	52.6	29.8	3.5	3.5
Found the lessons learned through the DETA Summer Institute to be helpful.	59	27.1	59.3	11.9	–	1.7
Found the materials provided through the DETA Summer Institute to be helpful.	59	27.1	57.6	13.6	–	1.7

Note. SA=Strongly agree, A=Agree, D=Disagree, SD=Strongly disagree, DK=Don't know.

During the 2002-03 school year, the Instructional Technology Specialists visited the original DETA 1 teachers in their classrooms and provided support for the implementation of technology into teachers' professional and classroom practices. During each visit, the specialists asked the teachers to complete a checklist indicating what activities they were able to utilize during the 2002-03 school year. These activity lists were aligned with the NETS. The results of these checklists are summarized in Table 14.

One activity related to Standard #1–Technology Operations and Concepts was engaged in by 76.7% (*n*=102) of the participating teachers. At least one activity related to Standard #2–Planning and Designing Learning Environments and Experiences, Standard #3–Teaching, Learning and the Curriculum, and Standard #5–Productivity and Professional Practice, was engaged in by 52.6% (*n*=70) or more of the responding teachers. There were no activities related to Standard #4–Assessment and Evaluation or Standard #6–Social, Ethical, Legal and Human Issues, that were engaged in by more than 36.1% (*n*=48) of the teachers. This report on activities related to the NETS indicates substantially less activity than the abilities related to the NETS reported by the teachers on the follow-up survey. The teachers evidently felt that they had obtained the abilities represented by the NETS, but many had not yet been able to translate these abilities into actual classroom practices.

Table 14
Proportion of Teachers Reporting Use of DETA Activities in Their Classrooms by National Educational Technology Standards (n=133)

Standard/activity	*n*	*%*
Standard #1 Technology Operations and Concepts		
Use of word processing, database and/or spreadsheet programs to create classroom materials	102	76.7
Use of media center resources to find curriculum-related information	64	48.1
Use of Integrated Learning Systems for basic skill development and reinforcement in mathematics and reading	56	42.1
Use of laptop/presentation unit and multimedia software to present information	52	39.1
Standard #2 Planning and Designing Learning Environments and Experiences		
Incorporate Internet use into lesson plans	78	58.7
Use bookmarks and/or online bookmark account (i.e., Backflip) to organize online resources	70	52.6
Arrange physical setup of classroom promoting optimal use of technology resources	70	52.6
Establish management plan to monitor student progress	59	44.4
Identify adaptive technology needed	24	18.1
Standard #3 Teaching, Learning and the Curriculum		
Use of the Internet as a resource in developing curriculum plans	78	58.7
Use of electronic media (e. g., Internet, CD-ROMS) to support content objectives	59	44.4

(*table continues*)

Table 14 (*continued*)

Standard/activity	*n*	%
Use of online student interactive activities to introduce, reinforce or extend upon concepts taught in class	37	27.8
Use of Inspiration for professional productivity	31	23.3
Use of Inspiration to support classroom teaching and learning by students and teacher	19	14.3
Use of project based learning	16	12.0
Use of Webquests to promote inquiry based learning	15	11.3
Integration of Riverdeep into instructional design and plan	15	11.3
Use of probeware/handhelds to provide hands-on science exploration and research	1	1.0
Standard #4 Assessment and Evaluation		
Use technology tools to collect and interpret student achievement data	40	30.1
Collaborate with peers to improve instructional design and delivery	33	24.8
Design instructional plans based on data	31	23.3
Use of rubrics to assess technology projects	28	21.1
Collect and interpret Integrated Learning System data and plan lessons accordingly	21	15.8
Use of electronic portfolios	9	6.8
Standard #5 Productivity and Professional Practice		
Use of email to communicate	89	66.9
Use of the BCPS data warehouse to retrieve student achievement data	29	21.8
Use of class websites to communicate with students, staff, parents, and community	19	14.3
Use of Atomic Learning for training on specific software applications that are available in your school	17	12.8
Use of an electronic Individual Education Plan	15	11.3
Use of Atomic Learning for further training on software applications that you've been trained in	11	8.3
Use of Atomic Learning for review of concepts within particular applications	11	8.3
Use of videoconferencing	7	5.3
Engaging in a professional forum through Atomic Learning's Membership Services	4	3.0
Standard #6 Social, Ethical, Legal and Human Issues		
Conduct classroom discussion regarding ethical use of technology (Acceptable Use Policy of The School Board of Broward County, Florida)	48	36.1
Present and apply copyright guidelines	35	26.3
Teach students proper citation of Internet and other electronic sources	28	21.1
Discuss netiquette regarding online communication tools such as email, bulletin boards, and chat rooms	27	20.3
Post rules reflecting responsible use of technology	23	17.3

4. *What were the perceptions of participants in DETA 2 of the format, content, and delivery of the instructional activities?*

Participants (*n*=22) in DETA 2 completed a post-course survey addressing course objectives. The seven course objectives were ranked by the participants on a scale of 1 through 5 (1 being the lowest self assessment of accomplishment score, 5 the highest). The course objectives were aligned with the relevant standards of the National Council for Accreditation of Teacher Education programs (NCATE)/National Education Teacher Standards (NETS) and are provided in Table 15. The NCATE/NETS standards are derived from the International Society for Technology in Education (ISTE) guidelines (ISTE, 2000). These guidelines pertain to preK-12 national standards for educational uses of technology to facilitate school and student performance. They define grade and curriculum guidelines for integration and infusion of technology into curriculum, technology support, student assessment and the evaluation of technology use in the preK-12 school system. All of the course objectives received the highest rating (5) by all of the participants (100%, *n*=22), indicating that DETA 2 met its objectives in the eyes of the participants.

Table 15
Summary of Course Objectives and Alignment

Course objectives	Alignment
1. Demonstrate skills necessary to utilize multimedia tools to engage in the development of alternative assessment strategies.	NCATE: 1, 2, 3, 5, 8, 9, 12 NETS: 1B, 4A, 4C
2. Employ the use of various problem-solving strategies that utilize systematic inquiry both individually and collaboratively to improve the evaluation of student progress using a variety of traditional and emerging technologies.	NCATE: 1, 3, 5, 6, 9, 13 NETS: 4A, 2E
3. Identify the benefits of technology to maximize student learning and facilitate higher order thinking skills.	NCATE: 1, 3 NETS: 3C
4. Plan and teach student-centered learning activities and lessons in which students apply technology tools and resources.	NCATE: 2, 3 NETS: 3A, 3D
5. Examine technology tools used to collect, analyze, interpret, represent, and communicate student performance data.	NCATE: 1, 4 NETS: 4B, 4C
6. Identify and engage in technology-based opportunities for professional education and lifelong learning, including the use of distance education.	NCATE: 5 NETS: 5
7. Develop a portfolio of technology-based products from coursework, including the related assessment tools.	NCATE: 4, 5 NETS: 5

DETA 2 participants (*n*=21) also engaged in an end-of-course focus group discussion. Questions were designed to solicit feedback on course satisfaction, course strengths and weaknesses, recommendations for change/improvement, learning outcomes, implementation plans, and anticipated barriers to implementation.

Participants' comments were uniformly positive. Participants stated that, in their opinion, (a) the technology was appropriate to their needs and the objectives of DETA 2 training, (b) the sequencing of curriculum and instructional activities were well linked so that they experienced a logical flow between topic and application during the training, and (c) they had no significant recommendations for curricular additions or deletions. The participants indicated that their lack of recommended changes was attributable to a well thought out DETA 2 training program.

Participants stated that they recognized through their DETA 2 training the ability to put their knowledge to work and adapt their learning experiences in their own classroom environments. Teachers expressed appreciation for the instructor's ability to encourage them to "think and act like students," as well as engage and support them in their developing active inquiry and project based curricula initiatives. Reflective discussion and interaction, as well as sharing of lesson plans and experiences, according to the participants, was central to the transformative nature of the course in bringing teachers together to assess and adapt their curriculum in light of objective student accountability frameworks and measures.

In their own words, the participants stated: "The learning experience has been exceptional. The tools (the programs which were taught to the participants, such as Imovie and Virtual Counselor) were well chosen. These are things we will use immediately when school starts. Having these skilled, patient and knowledgeable presenters made the class a success. I felt engaged, improved, and motivated to get back to my classroom and incorporate the strategies we learned."

Focus group participants (n=21) reported a high degree of satisfaction in their overall value rating of their course experiences. The group value rating is a group consensus opinion of the value of the course component judged on a scale of Low, Medium or High. Participants' responded unanimously with ratings of "High" for each component of the DETA 2 course: course content/tools, classroom applicability, Virtual Counselor, motivation/inspiration, Imovie, interaction with peers, and student assessment.

In addition to participants' unanimous ratings of "High" for their course experiences, Table 16 summarizes the number and percentage of specific spontaneous comments made by the focus group participants indicating satisfaction of the DETA 2 components. These numbers represent the number of specific comments made during the focus group, not the number of participants satisfied with the course.

Table 16
Summary of Participants' Satisfaction With DETA 2 Course Components (n=21)

DETA 2 component	*n*	*%*
Course content/tools	8	38.1
Classroom applicability	8	38.1
Virtual Counselor	6	28.6
Motivation/inspiration	3	14.3
Imovie	2	9.5
Interaction with peers	2	9.5
Student assessment	1	4.8

Note. Teachers could respond to more than one category.

Focus group participants (*n*=21) were also asked for recommendations for change/improvement. One teacher each recommended moving to wireless classrooms, holding special topic workshops (e.g., Science), having separate PC/MAC classes, and having a workshop in web design.

The design and implementation of the DETA 2 curriculum was a success on all levels. Overall, focus group participants stated they viewed the curriculum as strong, effective, highly motivating and well suited to classroom application. The preplanning that went into the course's rigor, content and pacing were all applauded by the participants. The level of instructional and technical support were well received and highly regarded. Technology resources were sufficient to provide a complete and effective hands-on experience for all participants. The teacher participants stated that they highly valued the opportunity to receive graduate credit for their training. They reported that they were well prepared to return to their classrooms and begin the implementation process. The participants looked forward to continuing district support for their efforts throughout the coming year, and the anticipated opportunity to showcase their accomplishments at an end of the year conference/showcase event.

While the participants came to DETA 2 training with a strong set of skills from their own prior experiences and DETA 1 training, they demonstrated notable learning accomplishments through their production of classroom related materials with new technologies and applications (including multimedia, digital video, online rubrics, Virtual Counselor, Data Warehouse). The course's focus on the hands-on creation of classroom related materials based on their DETA 2 training was rated by the focus group participants as a positive benefit of the experience. Focus group participants reported that the DETA 2 experience significantly increased their interest in changing the manner in which they approach: (a) their teaching, (b) course organization, (c) interaction with their students, and (d) assessing their students. Teachers reported the highlight of participating in DETA 2 was, without question, training in the use of Imovie and digital cameras. Significantly, they requested that a third DETA experience be designed around building websites and furthering their newly acquired technology skills.

5. *What was the perceived knowledge, skill, and resource information benefits for participants in the DETA 2 activities?*

The post-course teacher survey (*n*=22) was designed to elicit participant input regarding the ways that the training provided changed their instructional practices. Teachers' responses regarding the impact of DETA 2 on instructional practices are provided in Table 17.

There was very little overall change in the number of participants who rated any level of change in their instructional practices due to participation in DETA 2. This can be attributed to the high baseline level requirements for participants entering into the training program and their established use of technology in their classrooms. Noticeable however, is a 25% (from 12 to 9) decrease in the number of respondents in the area of "spending more time with individual students" and a 15% (from 13 to 11) decrease in the number of participants "comfortable with small group activities." Participants reported that these changes may be attributed to the recognition that group rather than individual technology projects were more suitable to their classrooms, which require higher levels of prior preparation and work commitment.

Conversely, the number of participants "meeting the differentiated needs of diverse student learning styles" increased 18% (from 11 to 13), while the number of respondents reporting "incorporating higher order thinking skills" increased 17% (from 12 to 14). These findings reflect the impact of DETA 2 in moving participants from the personal competencies learned in DETA 1 to applying those competencies in a dynamic classroom setting of interactive students.

Table 17
Participants' Responses Regarding How DETA 2 Changed Their Instructional Practices

	Able to do before taking DETA 2		Able to do after taking DETA 2	
Instructional practice	*n*	%	*n*	%
Spend less time lecturing to the whole class	11	50.0	12	54.5
Spend more time with individual students	12	54.5	9	40.9
Very comfortable with small group activities	13	59.1	11	50.0
Very comfortable with students working independently in a constructivist, learner-centered environment	11	50.0	11	50.0
Provide differentiated instruction, especially when considering student's learning styles	11	50.0	13	59.1
Provide students with learning activities that require performances incorporating higher order thinking skills	12	54.5	14	63.6

Table 18 presents findings related to how DETA 2 changed participants' teaching style and technology applications in the classroom. In four of five categories there was at least a 100% increase in the number of participants who reported positive changes in their abilities. In the fifth category, there was a 50% increase (from 8 to 12) in the number of participants who "regularly ask students to submit reflective journals." A number of participants had reported they had

previously experimented with "journaling" as a classroom activity, but were now prepared to integrate that activity into technologically enriched classroom assessment practices.

Overall, Table 18 displays the positive impact of DETA 2 in moving the participants from holders of knowledge and training acquired in DETA 1 to facilitators of a technologically enriched curriculum, which enables students to collaboratively direct and guide interactive learning activities of their own design. The greatest gain was the more than three fold movement from 5 to 17 participants reporting they were now prepared to "facilitate and guide" rather than "dispense" learning. Accomplishing this positive shift in teaching style is perhaps the strongest finding that can be attributed to the DETA 2 course. It provides a solid foundation for recognition that the DETA 2 course fulfilled and surpassed the intentions of those who designed and delivered its content.

Table 18
Participants' Responses Regarding How DETA 2 Changed Their Teaching Style and Technology Application in the Classroom

	Able to do before taking DETA 2		Able to do after taking DETA 2	
Instructional practice	*n*	*%*	*n*	*%*
Provide students with project-based activities, which also reflect problem solving and lifelong learning	6	27.3	14	63.6
Effectively use rubrics as part of the instruction and the assessment of assignments/projects	8	36.4	16	72.7
Regularly ask my students to submit reflective journals	8	36.4	12	54.5
Facilitate and guide learning more often then I dispense learning	5	22.7	17	77.3
Can effectively integrate technology into most instructional lessons and activities	7	31.8	15	68.2

Table 19 presents participant responses in terms of how DETA 2 changed their planning activities. There was little change in participant ability or confidence to prepare and apply technology for grading rubrics. However, this may again be attributable to the high baseline skill and background level the participants brought with them to DETA 2. Change was readily apparent, however, in the number of participants who reported being prepared to integrate technology into their classroom curriculum (e.g., from 7 to 14). These findings reinforce the conclusion that DETA 2 participants had acquired the ability to plan technology projects and the expertise needed to effectively implement their training in the classroom setting (estimating time lines, organizing students, distributing technology tasks, accommodating different levels of student expertise, devising assessment rubrics).

Table 19
Participants' Responses Regarding how DETA 2 Changed Their Planning Activities

Planning activity	Able to do before taking DETA 2		Able to do after taking DETA 2	
	n	%	*n*	%
Connect instructional uses of technology to curriculum objectives and student achievement	7	31.8	14	63.6
Identify the appropriate technology and other needed resources	7	31.8	14	63.6
Accommodate for different levels of students' technology expertise	9	40.9	15	68.2
Determine how the students' projects will be evaluated and each project's weighting towards their final grade	7	31.8	14	63.6
Estimate overall time required to complete projects	9	40.9	13	59.1
Prepare student materials (e.g., templates, grading sheets, student checklists) and become confident using technology	11	50.0	12	54.5
Determine how students will be organized, how time will be allocated, and how technology will be shared	8	36.4	14	63.6

A final portion of the post-course Technology Survey elicited participant input regarding the ways that participants have changed their assessment activities. The results of these survey questions are summarized in Table 20. As a consequence of the DETA 2 course, there were increases in the number of teachers planning to make changes in their assessment practices in the classroom for all seven activities.

The greatest gains in participant knowledge came from training in the use of Compass, Virtual Counselor, Data Warehouse, FCAT explorer, understanding of the ITSE grade standards and the ability to use technology to analyze and assess individual and group student results on standardized performance tests. Participants reported having little or no exposure to these programs for using technology for tracking and analyzing student academic progress prior to the DETA 2 training experience. Participants reported that their DETA 2 training enabled them to link the information they had received about these programs to the realities of their own student classroom and academic performance. This training, according to the participants, enabled them to gain a new perspective on student academic history and the role technology now plays in assessing student performance and progress indicators. The insights of their students gained from the use of technology in assessment were linked to new ways these teachers planned to use technology to enrich their curriculum to create learning and improvements on a number of standardized student performance indicators (e.g., a reported increase from 6 to 16 participants now able to use technology "to analyze student individual and group performance on standardized tests;" and from 5 to 16 participants now prepared to use "Compass to empower student achievement").

Table 20
Participants' Responses Regarding How DETA 2 Changed Their Assessment Activities

Assessment activity	Able to do before taking DETA 2		Able to do after taking DETA 2	
	n	%	*n*	%
Using Compass to empower student achievement	5	22.7	16	72.7
Using Virtual Counselor for student assessment	3	13.6	17	77.3
Using the Data Warehouse to track student performance	4	18.2	21	95.4
Using FCAT Explorer to assist students	5	22.7	16	72.7
Using ISTE grade related technology standards to improve student achievement	5	22.7	15	68.2
Using technology for parent-teacher conferencing	9	40.9	11	50.0
Using technology to analyze student individual and group performance on standardized tests	6	27.3	16	72.7

The data presented in Tables 17, 18, 19, and 20 represent a clear and consistent overall pattern of teacher self reports of satisfaction with their training, as well as willingness to adapt their classroom practices to reflect their training and adhere to national technology standards and practices for the classroom. There were consistent increases in the number of participants reporting: (a) new learning as a result of their participation; and (b) a willingness to implement that training in the classroom practices of planning, teaching and assessment.

It is on this basis that the DETA 2 training experience met the expectations of both the trainers and participants. The technological proficiency of the participants was a pre-requisite for the DETA 2 training. The willingness and readiness to apply that training in the classroom was the "digital divide" which was crossed by the participants as a consequence of participating in the DETA 2 experience. Exposure to the use of technology in classroom projects, using technology to assess those projects and analyze student performance, and utilize the findings in an iterative continuous feedback manner to improve student academic performance is a remarkable accomplishment of the DETA 2 training experience and of benefit to the participants.

Summary and Conclusions

The results of this evaluation effort indicate that the Digital Education Teacher Academy, through both DETA 1 and DETA 2 courses, as well as the in-service support provided by the Instructional Technology Specialists, has positively impacted the knowledge and abilities of the participants regarding the incorporation of technology into their classroom practices. There is also support for the conclusion that there has been a favorable impact on the daily classroom activities and pedagogical approaches used by these participants.

The primary factors that have affected the ability of the participants in the DETA to translate their new knowledge and skills into changes in their classroom practices has been found to be

primarily school site specific. These factors have been identified as: (a) school infrastructure, including the availability of appropriate technology and technical support; (b) school climate or the schoolwide emphasis on technology; and (c) administrative support, including the provision for adequate time for training and planning.

The Customer Staff Development Services Department has responded to findings highlighted in this report by changing their training priorities, away from training groups of teachers drawn from across the county based on teacher desire, to a focus on whole school training where the administrative support and school infrastructure can be assured through the request and ownership of the school leadership and their active participation in the process. The training can then be aligned with the needs of the school leadership to change the school climate to one where technological innovation is integral to the school culture.

Recommendations

1. The Director of the Customer Staff Development Services Department of Curriculum & Instruction/Student Support will continue the transition to focusing on whole school training as the priority for the DETA. Schoolwide implementation of the DETA will maximize program impact on participants' abilities to integrate technology into the classroom and minimize negative factors identified in this report: school infrastructure, school climate, and administrative support. By April 2004, the Director of Customer Staff Development Services will develop a schoolwide integration plan that emphasizes consistency across sites and addresses the following factors:
    - *Participating schools*. By May 2004, Instructional Technology Specialists will identify schools available to implement DETA on a schoolwide basis to prioritize their engagement and ownership of the process.
    - *Technology support*. Support staff shall be identified to ensure adequate technology support and access for teachers and students at DETA schools. Efforts shall be made to identify a staff member at each DETA school to provide technology support; however, if not available, then a technology support person shall be identified from existing district, area, or Innovation Zone staff to provide support to multiple DETA schools.
    - *Targeted use of technology*. A mechanism shall be developed to ensure the targeted use of technology in DETA schools. A lead contact person at each school shall be identified to monitor the targeted use of technology in the classrooms through regular classroom visitations and the use of observation rubrics (pre/post-assessments). Procedures shall include periodic classroom visitations by principals and assistant principals to reinforce the targeted use of technology in instruction.
    - *Curriculum*. A clear alignment between curriculum and technology shall be established at each school whereby integrating technology is built into the curriculum, which can be used as a model for integrating technology across the district.
    - *Outcomes*. Measurable benchmarks should be identified so that schools can determine their degree of progress toward seamless technology integration with a sufficiently supportive infrastructure and school culture/climate to assure self-sustainability.
    - *Implementation*. Implementation of the schoolwide DETA model shall start in August 2004.

2. For future studies examining the impact of the DETA on the instructional practices of participants, the Director of Research Services will take steps to include pre- and post-assessments of classroom observations in the evaluation design to determine the degree of program impact over time.

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9.2

A description of the process used to facilitate mid-course corrections in response to new developments and opportunities as they arise.

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
Research, Evaluation, Assessment & Boundaries

Guidelines and Procedures for the Annual Evaluation Process

Each year, the Research Services Department surveys Senior Managers for projects or programs that require annual evaluations, reports, or analyses to be completed during the subsequent three school years. Projects approved for study will be added to the Three-Year Research and Program Evaluation Calendar (hereafter referred to as the Three-Year Calendar), and will be conducted or coordinated by staff from the Research Services Department. Proposed studies may result from local, state, or federal grant requirements or may be initiated internally to promote and advance teaching and student learning in Broward County Public Schools (BCPS). All studies to be included on the Three-Year Calendar will align with district goals by supporting student achievement.

Research Report Guidelines

The Research Services Department uses a variety of report formats to publish evaluation findings including formal *Evaluation Reports*, program *Status Reports*, *Research Briefs*, *Information Briefs*, and data analyses released under cover of memorandum. Evaluations are generally conducted by independent consultants and are more comprehensive in scope. Status Reports usually examine implementation activities, but may also review changes to specific district initiatives, or report survey findings. Research and Information Briefs examine district issues integral to improving student achievement. Finally, in some instances, analyses of districtwide initiatives or issues may be addressed through memorandum.

Generally, program evaluations may be formative or summative in nature or a combination of both. Formative evaluations attempt to identify the strength and weaknesses of a program to improve program components and eliminate program barriers. Formative evaluations most often address new initiatives. Summative evaluations focus on identifying characteristics of a program to make summary statements about the effectiveness or value of a program.

Funding Guidelines

Evaluation costs are determined by the scope of the project. When submitting a project for inclusion on the Three-Year Calendar, the amount and source of the funds for all evaluation activities must be included on the *Request Form.* (Please note, that Senior Managers will only fund consultant and consultant travel fees.) For districtwide initiatives that have no direct source of funding, Senior Managers may choose to indicate "District" as the source of funds on the *Request Form.* However, projects requiring district support have no guarantee that funds will be available. District funds and staff are limited. If necessary, Senior Managers will prioritize projects requested for district funding each year. The extent to which these projects are funded will be determined by available funds and staff capacity of the Research Services Department.

Annual Evaluation Process

The annual evaluation process includes procedures for requesting the addition of research projects to the district's Three-Year Research and Program Evaluation Calendar and the process for conducting and completing the requested study with staff from the Research Services Department.

November: Senior Manager Input – Each year a memorandum is sent to Senior Managers requesting additions or changes to the existing Three-Year Calendar for the subsequent three (3) school years. Senior Managers must submit a completed electronic *Request Form* to the Director of Research Services by the due date requested. A separate *Request Form* must be submitted for each project requested and must contain the following information:

- Date and type of request;
- Name and title of requesting manager and contact information;
- Name of program to be evaluated;
- School year(s) program is to be evaluated and whether the evaluation is grant-related;
- Due date of proposed evaluation and reason for due date requested;
- Type of evaluation (e.g., Evaluation Report, Status Report);
- Focus of evaluation (research categories shall be checked accordingly);
- Information indicating where the program has been implemented;
- Source/amount of funds allocated for the evaluation (see Funding Guidelines).

To request evaluations of grants funded after the beginning of the school year, a memorandum with an electronic *Request Form* must be sent to the Director of Research Services for approval.

January: Publishing the Revised Calendar – After compiling all requests for additions or changes to the Three-Year Calendar, the revised Three-Year Calendar will be sent to Senior Management for review and will be published by memorandum. Concurrent with publication, the Three-Year Calendar will be revised on the Research Services Department website for access by district staff throughout the year. Additionally, electronic confirmations with links to the approved calendar will be emailed to those Senior Managers who made requests for studies.

June: Project Assignment – All projects on the Three-Year Calendar will be assigned to a Research Services staff member by the Director of Research Services. All phases of projects, whether using internal resources or external consultants, are conducted, coordinated and monitored by Research Services staff.

July: Initiating the Evaluation Process – The Research Services staff member responsible for coordinating or conducting the requested research project will contact the Senior Manager or designated project contact person to initiate the program evaluation process. The Research Services contact person will arrange a meeting with program stakeholders and Research Services staff to define the full scope and focus of the evaluation. If the evaluation will be conducted by an outside consultant, a potential consultant may be contacted to attend the meeting as well. The initial meeting will serve to:

- clarify the central purpose of the evaluation for project stakeholders,
- develop the specific research questions to be addressed in the study,
- define the research methodology, and
- discuss and solve data collection issues and limitations.

Determining the full scope and focus of the evaluation will also highlight the specific responsibilities of project stakeholders and define data collection needs. This entails the identification of existing data and the need for collecting new, non-existing data.

August/September: Consultants and Funding – For projects to be conducted by an outside evaluator and subsequent to determining the scope of the evaluation by all stakeholders, a consultant will submit an evaluation proposal for review by Research Services staff and program stakeholders. The evaluation proposal will identify the purpose and design of the evaluation, the research questions to be addressed, the data collection methods to be used, and the project timeline that will be followed throughout the study. (The due date as specified in the evaluation proposal represents the date that Research Services receives the report, not the date of release.) Upon unanimous agreement of the evaluation proposal, a consultant agreement will be signed by the consultant, and appropriate Research, Evaluation, Assessment and Boundaries staff members. Concurrent with the execution of the consultant agreement, the Research Services Department will invoice the department requesting the project for all consultant expenses. In situations where the Research Services Department has not been notified of the evaluation in a timely manner and in which grant expenditure deadlines precede the steps necessary to contract with a consultant, Research Services Department will invoice the requesting department for the full amount of funds allocated for an evaluation under the terms of the grant. Subsequent to contracting with a consultant, the Research Services Department will reimburse the requesting department for all unallocated funds.

September to End of Project: Project Management – Throughout the project the Research Services staff member will 1) monitor progress of the evaluation activities against the proposal timeline; 2) serve as liaison between the consultant and district staff; 3) implement data collection mechanisms to ensure that data is collected in a timely manner and appropriate electronic format; 4) arrange and coordinate with program staff the implementation of all required research methods (e.g., surveys, focus groups, classroom observations); 5) collect data and construct all data files for consultant use; and 6) support consultant and program staff toward the successful completion of project goals.

Review and Release: At the conclusion of the project, the evaluator will submit a first draft of the report to the Research Services staff member by the due date specified in the evaluation proposal. The due date as specified in the evaluation proposal represents the date that Research Services Department receives the report draft not the date of release or publication. The Research Services staff member will review and edit the final report to conform to BCPS publication standards and request revisions from the evaluator when necessary. After all revisions have been completed, the Research Services staff member will forward the final report to the Director of Research Services and to the Senior Manager for review and feedback. Subsequent to review by all stakeholders and the incorporation of any necessary revisions, the Senior Manager(s) affected by the report recommendations will draft and execute a response memorandum. The Senior Manager will submit the signed original memorandum to the Research Services Department within 10 days of the request from the Research Services staff member. The final package—transmittal memorandum, response memorandum, and final report—will then be forwarded to the Superintendent of Schools for review and release.

Project Detail Return to Menu

Broward County Public Schools
Research, Evaluation, Assessment & Boundaries
Three-Year Research & Program Evaluation Calendar
12/13/2004

Project	Project Type	Request Date	Funded By/Via	Comments
2005-06 Research Projects				
Action Research	Evaluation	12/15/03	HRD	A 1-year evaluation.
Boys & Girls Club, 2005-06	Evaluation		Frank Vodolo	Annual evaluation.
CCC Diversity Status Report	Status Report	12/9/04	District	Annual report.
Cell Phone Update	Data Analysis	12/8/04	District	Analysis to be presented via memorandum.
Customer Survey (12th Annual)	Survey		District	Annual report.
Incidents Report	Status Report		SDFS	Annual report.
Superintendent's Evaluation	Evaluation		District	Annual evaluation.
Title I Access to Advanced Academics, 2005-06	Evaluation	10/20/03	Title I Part G Grant	Final year of 3-year project.
Title I Eligibility Survey (FY07)	Survey		Title I	Annual report.
Title I Indian Education Perf (Title VII)	DOE Evaluation		Title I	Annual report.
Title I Needs Assessment (FY07)	Evaluation		Title I	Annual report.
Title I Non-Public, Negl., Delinq.	DOE Evaluation		Title I	Annual report.
2006-07 Research Projects				
CCC Diversity Status Report	Status Report	12/9/04	District	Annual report.
Customer Survey (13th Annual)	Survey		District	Annual report.
Superintendent's Evaluation	Evaluation		District	Annual evaluation.
Title I Eligibility Survey (FY08)	Survey		Title I	Annual report.
Title I Indian Education Perf (Title VII)	DOE Evaluation		Title I	Annual report.
Title I Needs Assessment (FY08)	Evaluation		Title I	Annual report.
Title I Non-Public, Negl., Delinq.	DOE Evaluation		Title I	Annual report.
2007-08 Research Projects				
CCC Diversity Status Report	Status Report	12/9/04	District	Annual report.
Customer Survey (14th Annual)	Survey		District	Annual report.
Superintendent's Evaluation	Evaluation		District	Annual evaluation.

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
RESEARCH, EVALUATION, ASSESSMENT & BOUNDARIES

Katherine Blasik, Ph.D., Associate Superintendent

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Approved memorandum with signatures is on file.

June 6, 2005

TO: Principals

FROM: Katherine Blasik, Ph.D., Associate Superintendent
Research, Evaluation, Assessment & Boundaries

VIA: Verda Farrow, Ed.D.
South Central Area Superintendent

SUBJECT: **ELEVENTH ANNUAL CUSTOMER SURVEY INDIVIDUAL SCHOOL REPORTS**

Administration of the annual Customer Survey was concluded on May 13, 2005. The data gathered during this administration has been compiled into individual school reports, which may be accessed online at: http://www.broward.k12.fl.us/research_evaluation/reportpage/reports.htm, in the document titled, "Eleventh Annual Customer Survey Individual School Reports."

These reports contain school level data from the Eleventh Annual Customer Survey. The data are organized according to the three surveyed groups: students, staff, and parents. All staff who submitted a survey were included in the respondent count and the staff responses section, however, only staff with class assignments were included in the computation of teacher response rate. Findings presented herein are intended to assist school staff members in making decisions to improve school strategies. This year's data may be used in conjunction with data from previous years to monitor school progress. Prior year's data are also available at http://www.broward.k12.fl.us/research_evaluation/reportpage/reports.htm.

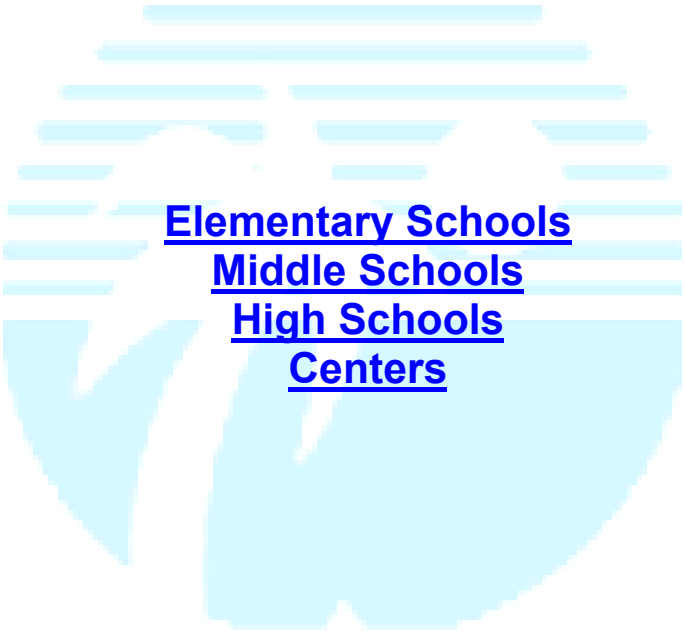
The districtwide Customer Survey report will be available near the end of July 2005. This report will provide comparisons between respondents and school levels. In addition, a school-by-school report linking data from the past three survey administrations will be released following the district report. If you have any questions, please contact **me at (754) 321-2470 or Dr. Cary Sutton, Director, Research Services at (754) 321-2500**.

VF/KAB/COS:pwh

cc: Dr. Frank Till, Superintendent of Schools
Senior Management
Area Directors

The School Board of Broward County, Florida

Improving Our Schools: 2004-05 Customer Survey
The Eleventh Annual Report of Student, Staff, and Parent Perspectives on Broward County Public Schools
School Reports



Elementary Schools
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Centers

Prepared by:
Research, Evaluation, Assessment & Boundaries
Department of Research Services

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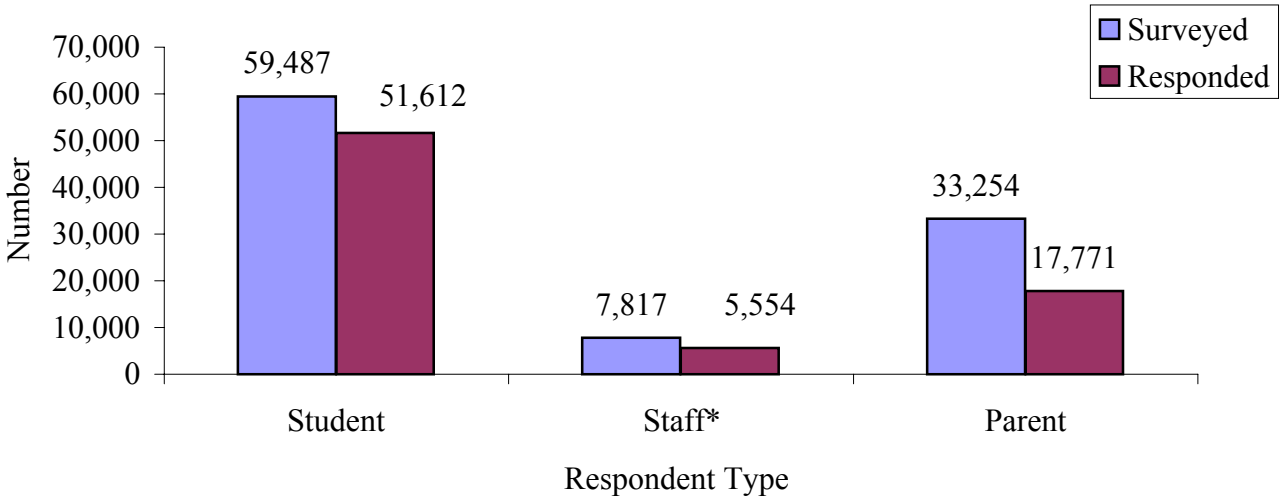
Improving Our Schools: 2004-05 Customer Survey

The Eleventh Annual Report of Student, Staff, and Parent Perspectives on Broward County Public Schools

Report for

Elementary Schools

This document contains data from the Eleventh Annual Customer Survey. The data are organized according to the three surveyed groups: students, staff, and parents. Findings presented herein are intended to assist school staff members in making decisions to improve school strategies. This year's data may be used in conjunction with data from previous years to monitor school progress. Prior year's data are available at http://www.broward.k12.fl.us/research_evaluation/reportpage/reports.htm. In addition, a school-by-school report linking data from the past three survey administrations will be released following the districtwide report.



*All staff who submitted a survey were included in this count and the staff responses section, however, only staff with class assignments were included in the teacher response rate.

Student Response Rate	Teacher Response Rate	Parent Response Rate
Online	Online	Paper
86.8%	70.0%	53.4%

School Grade Assigned by Students, Staff, and Parents

	Student		Staff		Parent	
	n	%	*n*	%	*n*	%
A	29,808	59.2	3,466	63.3	10,754	63.7
B	12,925	25.7	1,465	26.8	4,788	28.3
C	4,547	9.0	435	7.9	1,085	6.4
D	1,482	2.9	90	1.6	192	1.1
F	1,603	3.2	17	0.3	72	0.4

Student Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My teachers believe I can succeed.	*n*	34,537	13,534	882	396	224	1,947
	%	67.0	26.3	1.7	0.8	0.4	3.8
My school provides all of the resources I need for learning.	*n*	25,890	19,956	2,246	1,356	430	1,558
	%	50.3	38.8	4.4	2.6	0.8	3.0
My teacher(s) inform(s) my parents about my progress.	*n*	26,978	17,439	2,041	1,126	367	3,268
	%	52.7	34.1	4.0	2.2	0.7	6.4
My teacher(s) regularly tell(s) me how I am doing in school.	*n*	19,889	20,980	4,151	3,378	946	1,640
	%	39.0	41.2	8.1	6.6	1.9	3.2
My teacher(s) answer(s) my questions in a way that I can understand.	*n*	27,403	16,988	2,950	2,052	880	1,014
	%	53.4	33.1	5.8	4.0	1.7	2.0
My teacher(s) treat(s) me with fairness.	*n*	27,677	15,229	2,919	2,408	1,632	1,405
	%	54.0	29.7	5.7	4.7	3.2	2.7
I show respect to my teacher(s).	*n*	31,411	14,998	2,331	870	391	1,212
	%	61.3	29.3	4.6	1.7	0.8	2.4
I feel safe at my school.	*n*	27,617	14,309	3,215	2,480	1,829	1,592
	%	54.1	28.0	6.3	4.9	3.6	3.1
Students at school harass me.	*n*	6,042	7,264	3,596	10,733	20,243	2,798
	%	11.9	14.3	7.1	21.2	40.0	5.5
The student code of conduct is enforced fairly at my school.	*n*	22,272	15,518	3,462	2,434	1,734	5,467
	%	43.8	30.5	6.8	4.8	3.4	10.7
My school has enough books and equipment to help me learn.	*n*	31,244	15,154	1,884	1,356	696	914
	%	61.0	29.6	3.7	2.7	1.4	1.8
I am proud of my school.	*n*	28,743	15,045	3,134	1,681	1,439	1,154
	%	56.1	29.4	6.1	3.3	2.8	2.3
My school is kept in good condition.	*n*	21,451	18,056	4,144	3,439	2,000	1,867
	%	42.1	35.4	8.1	6.8	3.9	3.7
There is an adult at school I can talk to about my personal problems.	*n*	26,033	12,364	2,832	3,635	3,122	3,224
	%	50.8	24.1	5.5	7.1	6.1	6.3
My homework assignments help to reinforce what I am learning at school.	*n*	27,539	17,457	2,469	1,356	982	1,381
	%	53.8	34.1	4.8	2.7	1.9	2.7
I can meet with a guidance counselor when necessary.	*n*	19,693	14,749	4,032	3,679	2,346	6,514
	%	38.6	28.9	7.9	7.2	4.6	12.8
I have someone at home who is able to help me with my homework assignments.	*n*	34,851	11,249	1,566	1,693	1,288	453
	%	68.2	22.0	3.1	3.3	2.5	0.9
I have trouble learning because there are too many students in my classroom.	*n*	4,531	4,948	3,243	14,342	21,916	2,108
	%	8.9	9.7	6.4	28.1	42.9	4.1
The principal at my school helps me when I have concerns.	*n*	16,118	13,300	6,056	5,254	4,364	5,830
	%	31.7	26.1	11.9	10.3	8.6	11.5
My principal is effective at running my school.	*n*	25,932	11,875	3,283	2,382	2,415	4,884
	%	51.1	23.4	6.5	4.7	4.8	9.6
I see the school staff members around my school.	*n*	28,740	16,259	2,053	1,307	728	1,747
	%	56.5	32.0	4.0	2.6	1.4	3.4
I am aware of the purposes and goals of my school.	*n*	26,241	14,881	2,991	1,812	1,199	3,636
	%	51.7	29.3	5.9	3.6	2.4	7.2
Students bring drugs or alcohol to my school.	*n*	1,486	1,289	1,412	5,440	31,224	9,939
	%	2.9	2.5	2.8	10.7	61.5	19.6

Tables continues

Student Responses *(continued).*

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	2,219	2,804	2,089	5,633	27,908	9,869
Students carry weapons at my school.	%	4.4	5.6	4.1	11.2	55.2	19.5
	n	32,784	12,938	1,781	914	853	1,193
I am responsible for what I learn.	%	65.0	25.6	3.5	1.8	1.7	2.4
My principal and teachers ask what I think about	*n*	11,136	13,836	6,574	8,683	6,201	4,481
things around school.	%	21.9	27.2	12.9	17.1	12.2	8.8
I am satisfied with the learning environment at	*n*	24,879	16,581	3,524	1,988	1,510	2,273
my school.	%	49.0	32.7	6.9	3.9	3.0	4.5
	n	17,544	16,526	5,534	5,119	4,067	1,963
My school is clean.	%	34.6	32.6	10.9	10.1	8.0	3.9
I am accepted and feel like I belong at this	*n*	26,539	13,578	3,510	2,295	2,441	2,138
school.	%	52.6	26.9	7.0	4.5	4.8	4.2
My school has after-school activities/programs	*n*	33,768	10,971	1,285	999	882	2,905
for students.	%	66.5	21.6	2.5	2.0	1.7	5.7
I have met with a guidance counselor, teachers, or other school staff this year to talk about recent	*n*	12,982	11,154	4,781	9,048	7,943	5,018
test scores.	%	25.5	21.9	9.4	17.8	15.6	9.9
I use computers at home to complete	*n*	14,286	13,528	4,509	8,945	8,180	1,253
assignments.	%	28.2	26.7	8.9	17.6	16.1	2.5
My current teachers have taught me how to use technology (computers and Internet) to do my	*n*	22,305	13,503	3,602	5,188	4,027	2,171
schoolwork.	%	43.9	26.6	7.1	10.2	7.9	4.3
	n	35,221	9,706	2,283	1,060	1,353	1,183
I trust my teacher(s).	%	69.3	19.1	4.5	2.1	2.7	2.3
My parents are proud of what I have	*n*	35,025	10,236	1,848	990	751	1,753
accomplished in school this year.	%	69.2	20.2	3.7	2.0	1.5	3.5
There was a computer terminal readily available	*n*	27,595	10,778	2,614	1,852	1,608	5,357
when I was ready to respond to this survey.	%	55.4	21.6	5.3	3.7	3.2	10.8
I experienced technical problems when	*n*	7,601	6,904	2,916	8,611	19,007	4,492
completing this survey.	%	15.4	13.9	5.9	17.4	38.4	9.1

Staff Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	4,032	1,389	68	50	5	1
I believe all students can succeed.	%	72.7	25.1	1.2	0.9	0.1	0.0
The school provides adequate resources for me to	*n*	2,844	2,228	193	238	34	1
teach my students.	%	51.4	40.2	3.5	4.3	0.6	0.0
I inform parents about their children's progress	*n*	3,923	1,451	132	10	4	13
in school on a regular basis.	%	70.9	26.2	2.4	0.2	0.1	0.2
I regularly assess students and inform them of	*n*	4,052	1,342	96	8	3	13
their academic progress.	%	73.5	24.3	1.7	0.2	0.1	0.2
I work with each student to explain material in a	*n*	4,181	1,290	46	6	2	8
way that he/she can understand.	%	75.6	23.3	0.8	0.1	0.0	0.1
	n	4,792	729	7	4	2	3
I treat all my students with fairness.	%	86.6	13.2	0.1	0.1	0.0	0.1
	n	2,656	2,413	217	219	26	2
My students show me respect.	%	48.0	43.6	3.9	4.0	0.5	0.0
	n	3,340	1,911	180	84	19	6
The students are safe at school.	%	60.3	34.5	3.3	1.5	0.3	0.1
	n	3,447	1,815	162	82	21	2
I feel safe at my school.	%	62.3	32.8	2.9	1.5	0.4	0.0
	n	367	1,270	884	1,857	1,025	106
Students at school harass one another.	%	6.7	23.1	16.1	33.7	18.6	1.9
The student code of conduct is enforced fairly at	*n*	2,063	2,394	536	403	101	21
my school.	%	37.4	43.4	9.7	7.3	1.8	0.4
I have enough books and equipment to	*n*	2,663	2,173	259	365	56	6
effectively teach my students.	%	48.2	39.4	4.7	6.6	1.0	0.1
	n	3,569	1,643	211	78	27	2
I am proud of my school.	%	64.5	29.7	3.8	1.4	0.5	0.0
	n	2,500	2,197	305	414	113	1
My school is kept in good condition.	%	45.2	39.7	5.5	7.5	2.0	0.0
There is an adult at school that students and	*n*	3,255	1,925	197	92	25	30
parents can talk to about students' problems.	%	58.9	34.9	3.6	1.7	0.5	0.5
	n	2,538	2,296	505	86	13	49
I give challenging homework assignments.	%	46.3	41.8	9.2	1.6	0.2	0.9
My students meet with a guidance counselor	*n*	2,231	2,241	503	346	120	70
when necessary.	%	40.5	40.7	9.1	6.3	2.2	1.3
Parents or guardians share responsibility with	*n*	1,397	2,271	695	889	234	20
the school for the students' academic progress.	%	25.4	41.3	12.6	16.2	4.3	0.4
	n	3,580	1,839	40	10	5	2
I respond quickly to parents' requests.	%	65.4	33.6	0.7	0.2	0.1	0.0
My students have trouble learning because there	*n*	367	688	575	2,529	1,280	32
are too many students in my classroom.	%	6.7	12.6	10.5	46.2	23.4	0.6
The principal at my school responds to my	*n*	2,848	1,930	404	205	99	6
concerns.	%	51.9	35.1	7.4	3.7	1.8	0.1
I can rely on parents to help when achievement	*n*	839	2,616	902	941	189	16
or behavior problems occur with their child.	%	15.3	47.5	16.4	17.1	3.4	0.3

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
The principal does an effective job of running my school.	*n*	2,920	1,912	401	188	89	5
	%	53.0	34.7	7.3	3.4	1.6	0.1
Administrators are highly visible throughout my school.	*n*	2,957	1,977	290	219	74	3
	%	53.6	35.8	5.3	4.0	1.3	0.1
I am aware of the purposes and goals of my school.	*n*	3,541	1,806	78	45	23	7
	%	64.4	32.8	1.4	0.8	0.4	0.1
Students bring drugs or alcohol to this school.	*n*	45	48	202	1,416	3,307	495
	%	0.8	0.9	3.7	25.7	60.0	9.0
Students carry weapons at this school.	*n*	40	123	297	1,481	3,041	493
	%	0.7	2.3	5.4	27.1	55.5	9.0
Students bear responsibility for what they learn.	*n*	1,122	2,896	804	535	104	24
	%	20.5	52.8	14.7	9.8	1.9	0.4
The training I have received through staff development activities has enabled me to become a better teacher.	*n*	2,454	2,514	356	138	40	9
	%	44.5	45.6	6.5	2.5	0.7	0.2
My input on school decisions is solicited and valued.	*n*	1,710	2,404	822	399	141	40
	%	31.0	43.6	14.9	7.2	2.6	0.7
I am satisfied with the learning environment at my school.	*n*	2,165	2,631	383	250	66	1
	%	39.4	47.9	7.0	4.6	1.2	0.0
I am satisfied with the working conditions at my school.	*n*	2,102	2,568	396	325	112	2
	%	38.2	46.7	7.2	5.9	2.0	0.0
My school is clean.	*n*	1,905	2,465	357	542	217	3
	%	34.7	44.9	6.5	9.9	4.0	0.1
All students are accepted and feel like they belong at this school.	*n*	2,444	2,574	291	133	24	43
	%	44.4	46.7	5.3	2.4	0.4	0.8
My school provides adequate after-school activities/programs for students.	*n*	2,456	2,270	377	247	78	88
	%	44.5	41.2	6.8	4.5	1.4	1.6
I have met with guidance or other school staff this year to talk about my students' recent test scores.	*n*	2,132	2,138	724	369	65	63
	%	38.8	38.9	13.2	6.7	1.2	1.2
My students use computers at home to complete assignments.	*n*	548	1,611	1,169	1,228	312	631
	%	10.0	29.3	21.3	22.3	5.7	11.5
I have taught my current students how to use technology (computers and Internet) to do their schoolwork.	*n*	1,589	2,456	776	556	73	44
	%	28.9	44.7	14.1	10.1	1.3	0.8
My students trust me.	*n*	3,843	1,605	35	6	3	15
	%	69.8	29.1	0.6	0.1	0.1	0.3
I have been given adequate training to use technology (computers and Internet) to teach my students.	*n*	2,050	2,421	537	425	63	10
	%	37.2	44.0	9.8	7.7	1.1	0.2
I compare my current students' test scores to state standards to guide instruction.	*n*	2,397	2,226	626	162	17	55
	%	43.7	40.6	11.4	3.0	0.3	1.0

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
I have met with guidance staff, reading coaches, and other support staff this year to identify strategies for increasing student achievement among the lowest 25% of students.	*n*	2,522	2,139	474	269	56	42
	%	45.8	38.9	8.6	4.9	1.0	0.8
I have used data from the Virtual Counselor to plan the instructional activities for my students this year.	*n*	1,589	1,935	909	749	174	65
	%	29.3	35.7	16.8	13.8	3.2	1.2
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	3,904	1,424	52	63	32	8
	%	71.2	26.0	1.0	1.2	0.6	0.2
I experienced technical problems when completing this survey.	*n*	333	481	146	1,761	2,638	97
	%	6.1	8.8	2.7	32.3	48.4	1.8

Parent Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My child's teacher(s) believe(s) that he/she can succeed.	*n*	11,579	4,921	494	148	88	323
	%	66.0	28.0	2.8	0.8	0.5	1.8
My child's school has adequate resources for the instructions of my child.	*n*	7,340	8,066	1,064	479	136	407
	%	42.0	46.1	6.1	2.7	0.8	2.3
My child's teacher(s) inform(s) me about my child's progress on a regular basis.	*n*	8,738	6,642	1,040	860	232	49
	%	49.8	37.8	5.9	4.9	1.3	0.3
My child's teacher(s) inform(s) him/her about his/her academic progress.	*n*	8,032	7,012	1,286	567	154	490
	%	45.8	40.0	7.3	3.2	0.9	2.8
My child's teacher(s) present(s) material in a way appropriate for my child.	*n*	8,476	7,277	1,077	244	94	364
	%	48.4	41.5	6.1	1.4	0.5	2.1
My child's teacher(s) treat(s) him/her with fairness.	*n*	9,640	6,284	871	292	147	287
	%	55.0	35.9	5.0	1.7	0.8	1.6
	n	11,474	5,356	429	118	28	116
My child shows respect to his/her teacher(s).	%	65.5	30.6	2.5	0.7	0.2	0.7
	n	7,750	7,551	1,295	304	136	301
My child is safe at school.	%	44.7	43.6	7.5	1.8	0.8	1.7
	n	933	1,890	1,868	5,860	5,116	1,427
Students at school harass my child.	%	5.5	11.1	10.9	34.3	29.9	8.4
The student code of conduct is enforced fairly at my child's school.	*n*	5,590	8,359	1,715	372	160	1,198
	%	32.1	48.1	9.9	2.1	0.9	6.9
My child's school has enough books and equipment to effectively teach my child.	*n*	6,620	8,213	1,323	544	140	664
	%	37.8	46.9	7.6	3.1	0.8	3.8
	n	8,833	7,187	1,088	258	132	38
I am proud of my child's school.	%	50.4	41.0	6.2	1.5	0.8	0.2
	n	8,161	8,065	754	348	83	143
My child's school is kept in good condition.	%	46.5	45.9	4.3	2.0	0.5	0.8
There is an adult at school I can talk to about my child's problems.	*n*	7,102	7,619	1,480	370	161	720
	%	40.7	43.7	8.5	2.1	0.9	4.1
My child's homework assignments are challenging.	*n*	5,357	8,821	1,534	1,246	331	155
	%	30.7	50.6	8.8	7.1	1.9	0.9
My child meets with a guidance counselor when necessary.	*n*	2,630	5,082	4,347	1,261	466	3,518
	%	15.2	29.4	25.1	7.3	2.7	20.3
I share responsibility with the school for my child's academic progress.	*n*	10,375	6,178	530	212	56	111
	%	59.4	35.4	3.0	1.2	0.3	0.6
	n	8,509	6,790	1,094	535	219	171
The teachers respond quickly to my requests.	%	49.1	39.2	6.3	3.1	1.3	1.0
My child has trouble learning because there are too many students in his/her classroom.	*n*	1,009	1,655	2,771	7,111	4,300	494
	%	5.8	9.5	16.0	41.0	24.8	2.9
The principal at my child's school responds to my concerns.	*n*	4,673	6,115	3,776	590	343	1,897
	%	26.9	35.2	21.7	3.4	2.0	10.9
I help school staff when academic or behavioral problems occur with my child.	*n*	7,947	6,629	1,614	431	150	580
	%	45.8	38.2	9.3	2.5	0.9	3.3
The principal does an effective job of running my child's school.	*n*	7,311	7,506	1,466	316	224	650
	%	41.8	43.0	8.4	1.8	1.3	3.7
Administrators are highly visible throughout my child's school.	*n*	6,697	7,556	1,562	376	137	1,080
	%	38.5	43.4	9.0	2.2	0.8	6.2

Tables continues

Parent Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	6,204	8,451	1,394	528	203	497
I am aware of the goals of my child's school.	%	35.9	48.9	8.1	3.1	1.2	2.9
Students bring drugs or alcohol to my child's	*n*	226	253	863	3,347	7,921	4,684
school.	%	1.3	1.5	5.0	19.4	45.8	27.1
	n	278	386	843	3,266	7,843	4,641
Students carry weapons at my child's school.	%	1.6	2.2	4.9	18.9	45.5	26.9
	n	8,221	7,854	798	344	103	79
My child takes responsibility for learning.	%	47.3	45.1	4.6	2.0	0.6	0.5
My input on school decisions is solicited and	*n*	3,487	7,143	4,070	724	339	1,494
valued.	%	20.2	41.4	23.6	4.2	2.0	8.7
I am satisfied with the learning environment at	*n*	6,760	8,692	1,179	544	208	79
my child's school.	%	38.7	49.8	6.8	3.1	1.2	0.5
	n	7,736	8,397	705	418	138	143
My child's school is clean.	%	44.1	47.9	4.0	2.4	0.8	0.8
My child is accepted and feels like he or she	*n*	8,133	7,904	805	343	146	137
belongs at this school.	%	46.6	45.3	4.6	2.0	0.8	0.8
My child's school provides adequate after-school	*n*	4,696	6,156	2,148	860	466	3,047
activities/programs for students.	%	27.0	35.4	12.4	5.0	2.7	17.5
I have met with a guidance counselor or other school staff to talk about my child's recent test	*n*	5,348	6,821	1,739	2,350	629	412
scores.	%	30.9	39.4	10.1	13.6	3.6	2.4
My child uses computers at home to complete	*n*	3,784	6,388	1,620	4,225	1,151	187
assignments.	%	21.8	36.8	9.3	24.3	6.6	1.1
My child's current teachers have taught him/her how to use technology (computers and Internet)	*n*	4,625	6,909	2,203	1,587	477	1,558
to do his/her schoolwork.	%	26.6	39.8	12.7	9.1	2.8	9.0
	n	9,808	6,411	675	244	137	214
My child trusts his/her teachers.	%	56.1	36.7	3.9	1.4	0.8	1.2
	n	9,487	5,736	903	620	259	100
I am proud of my child's accomplishments in school this year.	%	55.5	33.5	5.3	3.6	1.5	0.6
I have used the district's Virtual Counselor	*n*	1,251	2,045	2,618	6,222	2,699	1,901
website to review my child's school records.	%	7.5	12.2	15.6	37.2	16.1	11.4

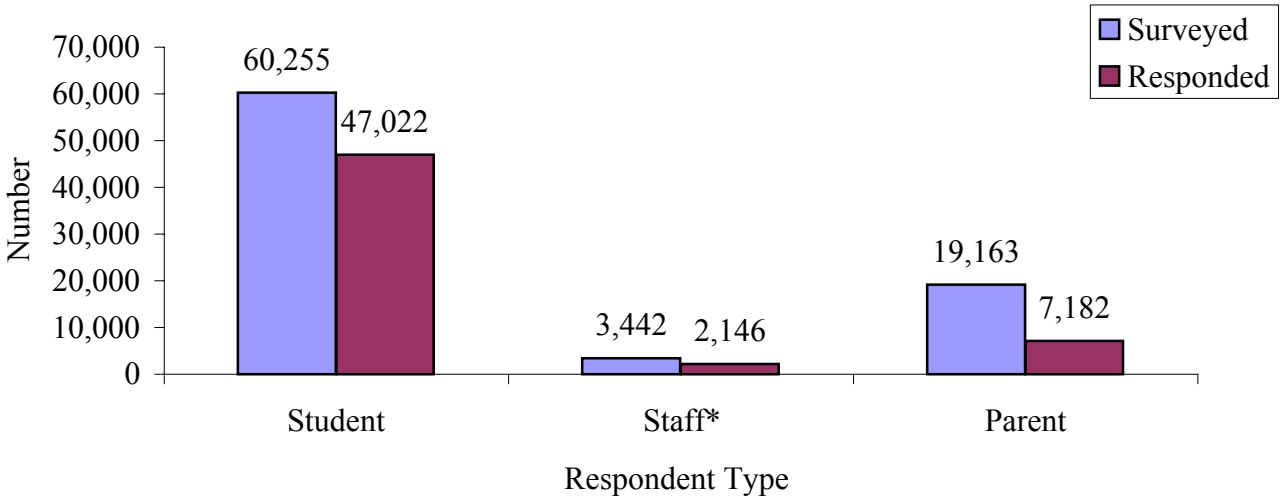
Improving Our Schools: 2004-05 Customer Survey

The Eleventh Annual Report of Student, Staff, and Parent Perspectives on Broward County Public Schools

Report for

Middle Schools

This document contains data from the Eleventh Annual Customer Survey. The data are organized according to the three surveyed groups: students, staff, and parents. Findings presented herein are intended to assist school staff members in making decisions to improve school strategies. This year's data may be used in conjunction with data from previous years to monitor school progress. Prior year's data are available at http://www.broward.k12.fl.us/research_evaluation/reportpage/reports.htm. In addition, a school-by-school report linking data from the past three survey administrations will be released following the districtwide report.



*All staff who submitted a survey were included in this count and the staff responses section, however, only staff with class assignments were included in the teacher response rate.

Student Response Rate	Teacher Response Rate	Parent Response Rate
Online	Online	Paper
78.0%	60.8%	37.5%

School Grade Assigned by Students, Staff, and Parents

	Student		Staff		Parent	
	n	%	*n*	%	*n*	%
A	9,781	21.2	1,011	47.9	2,528	36.3
B	14,848	32.2	700	33.2	2,969	42.6
C	12,110	26.3	305	14.5	1,117	16.0
D	5,021	10.9	81	3.8	255	3.7
F	4,347	9.4	12	0.6	94	1.3

Student Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My teachers believe I can succeed.	*n*	20,261	19,049	3,707	1,287	816	1,828
	%	43.2	40.6	7.9	2.7	1.7	3.9
My school provides all of the resources I need for learning.	*n*	11,954	21,785	6,063	4,559	1,575	909
	%	25.5	46.5	12.9	9.7	3.4	1.9
My teacher(s) inform(s) my parents about my progress.	*n*	10,847	16,524	6,820	6,044	2,548	3,795
	%	23.3	35.5	14.6	13.0	5.5	8.2
My teacher(s) regularly tell(s) me how I am doing in school.	*n*	9,043	18,362	7,242	7,935	3,216	628
	%	19.5	39.6	15.6	17.1	6.9	1.4
My teacher(s) answer(s) my questions in a way that I can understand.	*n*	12,185	18,866	7,884	4,597	2,581	558
	%	26.1	40.4	16.9	9.9	5.5	1.2
My teacher(s) treat(s) me with fairness.	*n*	10,933	17,380	8,063	5,483	4,005	821
	%	23.4	37.2	17.3	11.7	8.6	1.8
I show respect to my teacher(s).	*n*	23,815	16,338	3,849	1,012	814	786
	%	51.1	35.1	8.3	2.2	1.8	1.7
I feel safe at my school.	*n*	9,489	15,980	8,787	5,454	5,249	1,568
	%	20.4	34.4	18.9	11.7	11.3	3.4
Students at school harass me.	*n*	3,670	5,053	4,816	11,199	20,171	1,444
	%	7.9	10.9	10.4	24.2	43.5	3.1
The student code of conduct is enforced fairly at my school.	*n*	9,814	15,175	7,655	5,569	5,393	2,911
	%	21.1	32.6	16.5	12.0	11.6	6.3
My school has enough books and equipment to help me learn.	*n*	14,387	18,411	5,027	4,528	3,117	1,211
	%	30.8	39.4	10.8	9.7	6.7	2.6
I am proud of my school.	*n*	9,462	14,936	9,615	4,923	5,883	1,768
	%	20.3	32.1	20.6	10.6	12.6	3.8
My school is kept in good condition.	*n*	7,555	15,722	8,097	7,463	6,307	1,245
	%	16.3	33.9	17.5	16.1	13.6	2.7
There is an adult at school I can talk to about my personal problems.	*n*	15,449	13,890	4,741	3,947	4,742	3,807
	%	33.2	29.8	10.2	8.5	10.2	8.2
My homework assignments help to reinforce what I am learning at school.	*n*	14,587	20,019	5,439	2,721	2,753	1,083
	%	31.3	43.0	11.7	5.8	5.9	2.3
I can meet with a guidance counselor when necessary.	*n*	14,108	16,124	5,129	3,648	2,867	4,702
	%	30.3	34.6	11.0	7.8	6.2	10.1
I have someone at home who is able to help me with my homework assignments.	*n*	23,965	13,689	3,134	2,837	2,358	539
	%	51.5	29.4	6.7	6.1	5.1	1.2
I have trouble learning because there are too many students in my classroom.	*n*	3,790	4,342	5,527	14,493	16,930	1,473
	%	8.1	9.3	11.9	31.1	36.4	3.2
The principal at my school helps me when I have concerns.	*n*	5,014	7,753	9,091	7,676	11,383	5,443
	%	10.8	16.7	19.6	16.6	24.6	11.7
My principal is effective at running my school.	*n*	10,799	13,823	7,908	3,716	4,847	5,182
	%	23.3	29.9	17.1	8.0	10.5	11.2
I see the school staff members around my school.	*n*	21,815	19,162	2,438	949	984	991
	%	47.1	41.4	5.3	2.1	2.1	2.1
I am aware of the purposes and goals of my school.	*n*	14,844	17,621	5,853	2,757	2,185	3,043
	%	32.1	38.1	12.6	6.0	4.7	6.6
Students bring drugs or alcohol to my school.	*n*	6,148	6,951	5,566	4,812	8,392	14,531
	%	13.3	15.0	12.0	10.4	18.1	31.3

Tables continues

Student Responses *(continued).*

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
Students carry weapons at my school.	*n*	4,535	5,984	6,302	5,372	8,784	15,257
	%	9.8	12.9	13.6	11.6	19.0	33.0
I am responsible for what I learn.	*n*	19,708	17,560	4,205	1,765	1,679	1,159
	%	42.8	38.1	9.1	3.8	3.6	2.5
My principal and teachers ask what I think about things around school.	*n*	3,925	8,086	7,722	11,527	12,902	2,196
	%	8.5	17.4	16.7	24.9	27.8	4.7
I am satisfied with the learning environment at my school.	*n*	8,880	17,811	8,955	4,958	4,283	1,461
	%	19.2	38.4	19.3	10.7	9.2	3.2
My school is clean.	*n*	5,847	13,104	8,387	8,002	9,797	1,198
	%	12.6	28.3	18.1	17.3	21.1	2.6
I am accepted and feel like I belong at this school.	*n*	11,696	16,967	7,476	3,610	4,282	2,081
	%	25.4	36.8	16.2	7.8	9.3	4.5
My school has after-school activities/programs for students.	*n*	21,223	15,474	2,306	1,186	1,709	4,400
	%	45.8	33.4	5.0	2.6	3.7	9.5
I have met with a guidance counselor, teachers, or other school staff this year to talk about recent test scores.	*n*	6,744	9,926	5,725	10,716	11,002	2,319
	%	14.5	21.4	12.3	23.1	23.7	5.0
I use computers at home to complete assignments.	*n*	15,882	15,892	4,194	5,142	4,625	597
	%	34.3	34.3	9.1	11.1	10.0	1.3
My current teachers have taught me how to use technology (computers and Internet) to do my schoolwork.	*n*	11,211	13,966	5,746	7,271	6,879	1,268
	%	24.2	30.1	12.4	15.7	14.8	2.7
I trust my teacher(s).	*n*	12,060	14,358	8,522	3,908	5,316	2,078
	%	26.1	31.1	18.4	8.5	11.5	4.5
My parents are proud of what I have accomplished in school this year.	*n*	20,335	13,153	4,870	2,647	2,313	2,817
	%	44.1	28.5	10.6	5.7	5.0	6.1
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	19,664	14,177	3,545	2,148	2,299	3,866
	%	43.0	31.0	7.8	4.7	5.0	8.5
I experienced technical problems when completing this survey.	*n*	3,425	4,292	3,176	10,397	21,365	2,920
	%	7.5	9.4	7.0	22.8	46.9	6.4

Staff Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	1,286	764	40	48	4	2
I believe all students can succeed.	%	60.0	35.6	1.9	2.2	0.2	0.1
The school provides adequate resources for me to	*n*	907	937	127	152	14	3
teach my students.	%	42.4	43.8	5.9	7.1	0.7	0.1
I inform parents about their children's progress	*n*	1,138	882	81	23	1	6
in school on a regular basis.	%	53.4	41.4	3.8	1.1	0.1	0.3
I regularly assess students and inform them of	*n*	1,354	733	33	6	0	6
their academic progress.	%	63.5	34.4	1.6	0.3	0.0	0.3
I work with each student to explain material in a	*n*	1,306	767	41	13	1	5
way that he/she can understand.	%	61.2	36.0	1.9	0.6	0.1	0.2
	n	1,648	477	10	0	0	2
I treat all my students with fairness.	%	77.1	22.3	0.5	0.0	0.0	0.1
	n	802	989	141	166	36	2
My students show me respect.	%	37.6	46.3	6.6	7.8	1.7	0.1
	n	749	1,045	199	115	22	3
The students are safe at school.	%	35.1	49.0	9.3	5.4	1.0	0.1
	n	922	944	154	86	24	2
I feel safe at my school.	%	43.3	44.3	7.2	4.0	1.1	0.1
	n	284	923	394	412	84	31
Students at school harass one another.	%	13.4	43.4	18.5	19.4	4.0	1.5
The student code of conduct is enforced fairly at	*n*	536	977	235	278	87	15
my school.	%	25.2	45.9	11.0	13.1	4.1	0.7
I have enough books and equipment to	*n*	846	876	121	229	52	9
effectively teach my students.	%	39.7	41.1	5.7	10.7	2.4	0.4
	n	1,045	835	151	69	28	1
I am proud of my school.	%	49.1	39.2	7.1	3.2	1.3	0.1
	n	924	877	133	141	50	2
My school is kept in good condition.	%	43.4	41.2	6.3	6.6	2.4	0.1
There is an adult at school that students and	*n*	1,183	849	57	24	7	10
parents can talk to about students' problems.	%	55.5	39.9	2.7	1.1	0.3	0.5
	n	783	1,028	217	56	10	22
I give challenging homework assignments.	%	37.0	48.6	10.3	2.7	0.5	1.0
My students meet with a guidance counselor	*n*	811	1,003	168	83	14	41
when necessary.	%	38.3	47.3	7.9	3.9	0.7	1.9
Parents or guardians share responsibility with	*n*	471	780	316	423	123	13
the school for the students' academic progress.	%	22.2	36.7	14.9	19.9	5.8	0.6
	n	1,172	910	28	9	1	3
I respond quickly to parents' requests.	%	55.2	42.9	1.3	0.4	0.1	0.1
My students have trouble learning because there	*n*	192	397	306	905	300	18
are too many students in my classroom.	%	9.1	18.7	14.5	42.7	14.2	0.9
The principal at my school responds to my	*n*	944	824	194	83	51	14
concerns.	%	44.7	39.1	9.2	3.9	2.4	0.7
I can rely on parents to help when achievement	*n*	221	858	446	481	116	7
or behavior problems occur with their child.	%	10.4	40.3	21.0	22.6	5.5	0.3

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
The principal does an effective job of running my school.	*n*	931	829	203	87	64	6
	%	43.9	39.1	9.6	4.1	3.0	0.3
Administrators are highly visible throughout my school.	*n*	936	879	134	146	36	1
	%	43.9	41.2	6.3	6.9	1.7	0.1
I am aware of the purposes and goals of my school.	*n*	1,099	899	72	29	18	6
	%	51.8	42.4	3.4	1.4	0.9	0.3
Students bring drugs or alcohol to this school.	*n*	43	328	463	596	319	376
	%	2.0	15.4	21.8	28.1	15.0	17.7
Students carry weapons at this school.	*n*	37	220	444	669	400	346
	%	1.8	10.4	21.0	31.6	18.9	16.4
Students bear responsibility for what they learn.	*n*	350	956	341	379	84	9
	%	16.5	45.1	16.1	17.9	4.0	0.4
The training I have received through staff development activities has enabled me to become a better teacher.	*n*	776	1,048	194	81	27	4
	%	36.4	49.2	9.1	3.8	1.3	0.2
My input on school decisions is solicited and valued.	*n*	526	954	366	179	70	32
	%	24.7	44.9	17.2	8.4	3.3	1.5
I am satisfied with the learning environment at my school.	*n*	560	1,049	222	227	61	3
	%	26.4	49.4	10.5	10.7	2.9	0.1
I am satisfied with the working conditions at my school.	*n*	636	1,037	209	180	58	2
	%	30.0	48.9	9.9	8.5	2.7	0.1
My school is clean.	*n*	734	989	153	175	63	3
	%	34.7	46.7	7.2	8.3	3.0	0.1
All students are accepted and feel like they belong at this school.	*n*	482	1,041	299	206	32	57
	%	22.8	49.2	14.1	9.7	1.5	2.7
My school provides adequate after-school activities/programs for students.	*n*	677	938	227	172	48	60
	%	31.9	44.2	10.7	8.1	2.3	2.8
I have met with guidance or other school staff this year to talk about my students' recent test scores.	*n*	653	1,004	210	212	32	14
	%	30.7	47.3	9.9	10.0	1.5	0.7
My students use computers at home to complete assignments.	*n*	333	877	399	297	89	127
	%	15.7	41.3	18.8	14.0	4.2	6.0
I have taught my current students how to use technology (computers and Internet) to do their schoolwork.	*n*	565	913	294	297	34	14
	%	26.7	43.1	13.9	14.0	1.6	0.7
My students trust me.	*n*	1,077	936	77	9	0	22
	%	50.8	44.1	3.6	0.4	0.0	1.0
I have been given adequate training to use technology (computers and Internet) to teach my students.	*n*	762	912	232	186	27	7
	%	35.8	42.9	10.9	8.8	1.3	0.3
I compare my current students' test scores to state standards to guide instruction.	*n*	786	1,036	210	70	9	10
	%	37.1	48.8	9.9	3.3	0.4	0.5

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
I have met with guidance staff, reading coaches, and other support staff this year to identify strategies for increasing student achievement among the lowest 25% of students.	*n*	870	958	153	106	23	8
	%	41.1	45.2	7.2	5.0	1.1	0.4
I have used data from the Virtual Counselor to plan the instructional activities for my students this year.	*n*	671	876	240	254	37	18
	%	32.0	41.8	11.5	12.1	1.8	0.9
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	1,406	642	17	25	10	5
	%	66.8	30.5	0.8	1.2	0.5	0.2
I experienced technical problems when completing this survey.	*n*	114	191	70	722	947	48
	%	5.5	9.1	3.4	34.5	45.3	2.3

Parent Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My child's teacher(s) believe(s) that he/she can succeed.	*n*	3,108	3,001	453	98	55	388
	%	43.8	42.3	6.4	1.4	0.8	5.5
My child's school has adequate resources for the instructions of my child.	*n*	1,920	3,767	661	330	98	297
	%	27.2	53.3	9.4	4.7	1.4	4.2
My child's teacher(s) inform(s) me about my child's progress on a regular basis.	*n*	1,228	2,774	1,003	1,476	547	68
	%	17.3	39.1	14.1	20.8	7.7	1.0
My child's teacher(s) inform(s) him/her about his/her academic progress.	*n*	1,724	3,417	814	666	254	190
	%	24.4	48.4	11.5	9.4	3.6	2.7
My child's teacher(s) present(s) material in a way appropriate for my child.	*n*	1,684	3,820	869	273	88	330
	%	23.8	54.1	12.3	3.9	1.3	4.7
My child's teacher(s) treat(s) him/her with fairness.	*n*	1,849	3,522	841	419	173	281
	%	26.1	49.7	11.9	5.9	2.4	4.0
	n	3,572	2,834	356	122	45	157
My child shows respect to his/her teacher(s).	%	50.4	40.0	5.0	1.7	0.6	2.2
	n	1,569	3,437	1,143	401	196	266
My child is safe at school.	%	22.4	49.0	16.3	5.7	2.8	3.8
	n	407	866	730	2,394	2,027	511
Students at school harass my child.	%	5.9	12.5	10.5	34.5	29.2	7.4
The student code of conduct is enforced fairly at my child's school.	*n*	1,460	3,393	985	437	227	537
	%	20.7	48.2	14.0	6.2	3.2	7.6
My child's school has enough books and equipment to effectively teach my child.	*n*	2,018	3,508	662	419	172	303
	%	28.5	49.5	9.4	5.9	2.4	4.3
	n	1,941	3,463	1,096	323	175	92
I am proud of my child's school.	%	27.4	48.8	15.5	4.6	2.5	1.3
	n	1,819	3,707	767	394	181	216
My child's school is kept in good condition.	%	25.7	52.3	10.8	5.6	2.6	3.1
There is an adult at school I can talk to about my child's problems.	*n*	1,867	3,443	827	320	145	456
	%	26.5	48.8	11.7	4.5	2.1	6.5
My child's homework assignments are challenging.	*n*	1,495	3,517	949	702	242	168
	%	21.1	49.7	13.4	9.9	3.4	2.4
My child meets with a guidance counselor when necessary.	*n*	922	2,521	1,605	750	330	919
	%	13.1	35.8	22.8	10.6	4.7	13.0
I share responsibility with the school for my child's academic progress.	*n*	3,025	3,154	477	213	86	96
	%	42.9	44.7	6.8	3.0	1.2	1.4
	n	1,385	3,045	1,262	643	289	406
The teachers respond quickly to my requests.	%	19.7	43.3	18.0	9.2	4.1	5.8
My child has trouble learning because there are too many students in his/her classroom.	*n*	452	842	1,181	2,765	1,482	282
	%	6.5	12.0	16.9	39.5	21.2	4.0
The principal at my child's school responds to my concerns.	*n*	1,110	2,205	2,008	342	259	1,108
	%	15.8	31.4	28.6	4.9	3.7	15.8
I help school staff when academic or behavioral problems occur with my child.	*n*	2,244	2,924	956	339	152	406
	%	32.0	41.7	13.6	4.8	2.2	5.8
The principal does an effective job of running my child's school.	*n*	1,877	3,351	1,007	202	160	479
	%	26.5	47.4	14.2	2.9	2.3	6.8
Administrators are highly visible throughout my child's school.	*n*	1,901	3,243	925	229	96	651
	%	27.0	46.0	13.1	3.3	1.4	9.2

Tables continues

Parent Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
I am aware of the goals of my child's school.	*n*	1,633	3,582	929	390	138	357
	%	23.2	51.0	13.2	5.6	2.0	5.1
Students bring drugs or alcohol to my child's school.	*n*	261	580	1,041	1,236	1,250	2,640
	%	3.7	8.3	14.9	17.6	17.8	37.7
Students carry weapons at my child's school.	*n*	227	486	992	1,313	1,355	2,629
	%	3.2	6.9	14.2	18.8	19.4	37.6
My child takes responsibility for learning.	*n*	3,149	3,220	352	196	68	63
	%	44.7	45.7	5.0	2.8	1.0	0.9
My input on school decisions is solicited and valued.	*n*	878	2,532	1,976	541	246	834
	%	12.5	36.1	28.2	7.7	3.5	11.9
I am satisfied with the learning environment at my child's school.	*n*	1,489	3,897	907	461	217	95
	%	21.1	55.2	12.8	6.5	3.1	1.3
My child's school is clean.	*n*	1,664	3,698	675	519	271	243
	%	23.5	52.3	9.6	7.3	3.8	3.4
My child is accepted and feels like he or she belongs at this school.	*n*	1,983	3,821	575	306	210	169
	%	28.1	54.1	8.1	4.3	3.0	2.4
My child's school provides adequate after-school activities/programs for students.	*n*	1,350	2,557	1,122	566	322	1,118
	%	19.2	36.4	16.0	8.1	4.6	15.9
I have met with a guidance counselor or other school staff to talk about my child's recent test scores.	*n*	1,042	1,999	885	2,085	824	179
	%	14.9	28.5	12.6	29.7	11.8	2.6
My child uses computers at home to complete assignments.	*n*	2,952	3,083	235	520	217	62
	%	41.8	43.6	3.3	7.4	3.1	0.9
My child's current teachers have taught him/her how to use technology (computers and Internet) to do his/her schoolwork.	*n*	1,561	3,003	860	820	323	493
	%	22.1	42.5	12.2	11.6	4.6	7.0
My child trusts his/her teachers.	*n*	1,802	3,479	893	373	180	318
	%	25.6	49.4	12.7	5.3	2.6	4.5
I am proud of my child's accomplishments in school this year.	*n*	2,961	2,642	596	499	220	59
	%	42.4	37.9	8.5	7.2	3.2	0.9
I have used the district's Virtual Counselor website to review my child's school records.	*n*	1,020	1,518	807	2,009	951	534
	%	14.9	22.2	11.8	29.4	13.9	7.8

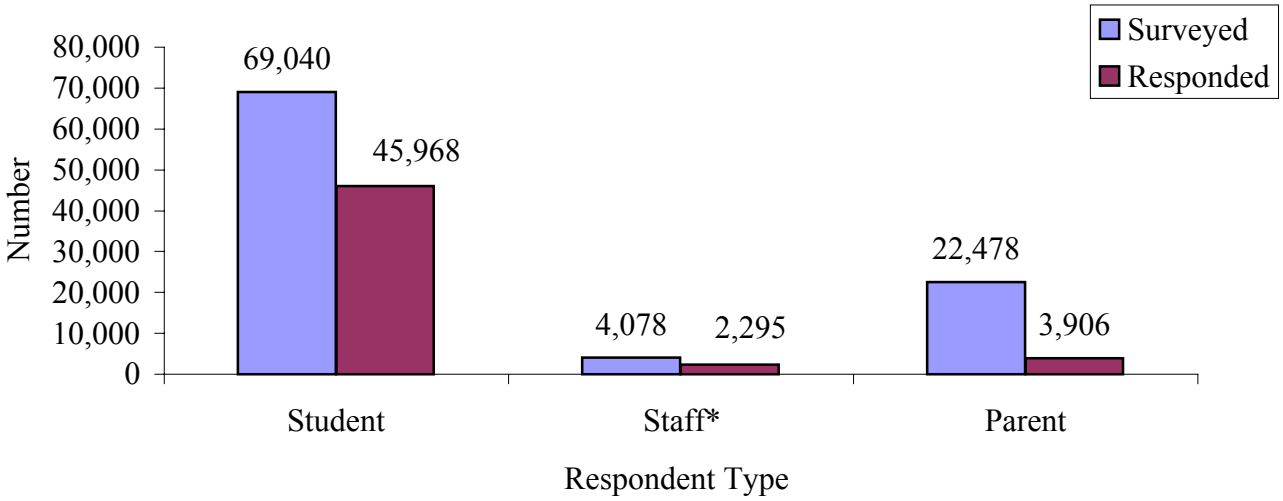
Improving Our Schools: 2004-05 Customer Survey

The Eleventh Annual Report of Student, Staff, and Parent Perspectives on Broward County Public Schools

Report for

High Schools

This document contains data from the Eleventh Annual Customer Survey. The data are organized according to the three surveyed groups: students, staff, and parents. Findings presented herein are intended to assist school staff members in making decisions to improve school strategies. This year's data may be used in conjunction with data from previous years to monitor school progress. Prior year's data are available at http://www.broward.k12.fl.us/research_evaluation/reportpage/reports.htm. In addition, a school-by-school report linking data from the past three survey administrations will be released following the districtwide report.



*All staff who submitted a survey were included in this count and the staff responses section, however, only staff with class assignments were included in the teacher response rate.

Student Response Rate	Teacher Response Rate	Parent Response Rate
Online	Online	Paper
66.6%	54.5%	17.4%

School Grade Assigned by Students, Staff, and Parents

	Student		Staff		Parent	
	n	%	*n*	%	*n*	%
A	7,431	16.4	643	28.3	1,032	27.1
B	15,614	34.5	900	39.6	1,551	40.7
C	15,370	34.0	557	24.5	943	24.7
D	4,652	10.3	151	6.6	231	6.1
F	2,135	4.7	24	1.1	56	1.5

Student Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My teachers believe I can succeed.	*n*	13,049	22,755	6,223	1,540	701	1,616
	%	28.4	49.6	13.6	3.4	1.5	3.5
My school provides all of the resources I need for learning.	*n*	7,888	22,240	7,597	5,680	1,630	681
	%	17.3	48.7	16.6	12.4	3.6	1.5
My teacher(s) inform(s) my parents about my progress.	*n*	5,259	13,781	9,556	10,131	4,115	2,632
	%	11.6	30.3	21.0	22.3	9.1	5.8
My teacher(s) regularly tell(s) me how I am doing in school.	*n*	5,654	17,953	8,292	9,603	3,410	461
	%	12.5	39.6	18.3	21.2	7.5	1.0
My teacher(s) answer(s) my questions in a way that I can understand.	*n*	7,467	21,922	9,313	4,559	1,855	462
	%	16.4	48.1	20.4	10.0	4.1	1.0
My teacher(s) treat(s) me with fairness.	*n*	7,460	21,222	9,188	4,721	2,264	677
	%	16.4	46.6	20.2	10.4	5.0	1.5
I show respect to my teacher(s).	*n*	22,383	18,209	3,333	606	516	480
	%	49.2	40.0	7.3	1.3	1.1	1.1
I feel safe at my school.	*n*	7,925	18,688	9,548	4,560	3,574	1,159
	%	17.4	41.1	21.0	10.0	7.9	2.6
Students at school harass me.	*n*	1,857	3,203	4,736	13,726	20,617	1,156
	%	4.1	7.1	10.5	30.3	45.5	2.6
The student code of conduct is enforced fairly at my school.	*n*	6,122	16,103	10,042	6,435	4,281	2,376
	%	13.5	35.5	22.1	14.2	9.4	5.2
My school has enough books and equipment to help me learn.	*n*	7,258	17,708	6,952	7,797	4,628	1,168
	%	16.0	38.9	15.3	17.1	10.2	2.6
I am proud of my school.	*n*	8,039	16,309	11,234	4,315	4,189	1,329
	%	17.7	35.9	24.7	9.5	9.2	2.9
My school is kept in good condition.	*n*	6,326	17,623	8,946	7,012	4,509	870
	%	14.0	38.9	19.8	15.5	10.0	1.9
There is an adult at school I can talk to about my personal problems.	*n*	8,382	14,880	7,369	5,319	4,654	4,799
	%	18.5	32.8	16.2	11.7	10.3	10.6
My homework assignments help to reinforce what I am learning at school.	*n*	8,498	22,555	7,425	3,528	2,467	961
	%	18.7	49.6	16.3	7.8	5.4	2.1
I can meet with a guidance counselor when necessary.	*n*	9,469	19,078	6,078	4,842	3,369	2,570
	%	20.9	42.0	13.4	10.7	7.4	5.7
I have someone at home who is able to help me with my homework assignments.	*n*	11,801	17,120	5,820	6,067	3,762	680
	%	26.1	37.8	12.9	13.4	8.3	1.5
I have trouble learning because there are too many students in my classroom.	*n*	3,296	5,503	8,555	17,869	9,057	1,087
	%	7.3	12.1	18.9	39.4	20.0	2.4
The principal at my school helps me when I have concerns.	*n*	3,501	6,605	11,343	8,023	10,643	5,089
	%	7.7	14.6	25.1	17.8	23.5	11.3
My principal is effective at running my school.	*n*	7,372	14,970	10,507	3,384	4,065	4,839
	%	16.3	33.2	23.3	7.5	9.0	10.7
I see the school staff members around my school.	*n*	14,840	24,254	3,543	952	715	901
	%	32.8	53.7	7.8	2.1	1.6	2.0
I am aware of the purposes and goals of my school.	*n*	9,930	19,616	7,759	3,400	1,860	2,596
	%	22.0	43.4	17.2	7.5	4.1	5.8
Students bring drugs or alcohol to my school.	*n*	8,914	10,194	8,004	3,838	3,336	10,990
	%	19.7	22.5	17.7	8.5	7.4	24.3

Tables continues

Student Responses *(continued).*

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
Students carry weapons at my school.	*n*	4,963	6,837	9,173	5,326	4,470	14,396
	%	11.0	15.1	20.3	11.8	9.9	31.9
I am responsible for what I learn.	*n*	15,244	21,144	5,096	1,651	1,013	815
	%	33.9	47.0	11.3	3.7	2.3	1.8
My principal and teachers ask what I think about things around school.	*n*	3,461	9,400	9,458	12,094	9,127	1,621
	%	7.7	20.8	20.9	26.8	20.2	3.6
I am satisfied with the learning environment at my school.	*n*	5,254	19,015	11,218	5,526	3,187	1,019
	%	11.6	42.1	24.8	12.2	7.1	2.3
My school is clean.	*n*	5,052	15,347	9,457	7,707	6,738	868
	%	11.2	34.0	20.9	17.1	14.9	1.9
I am accepted and feel like I belong at this school.	*n*	8,581	20,613	8,674	2,989	2,609	1,539
	%	19.1	45.8	19.3	6.6	5.8	3.4
My school has after-school activities/programs for students.	*n*	19,684	19,407	2,700	700	704	1,941
	%	43.6	43.0	6.0	1.6	1.6	4.3
I have met with a guidance counselor, teachers, or other school staff this year to talk about recent test scores.	*n*	7,833	14,780	6,427	9,609	5,389	1,182
	%	17.3	32.7	14.2	21.3	11.9	2.6
I use computers at home to complete assignments.	*n*	13,748	18,797	4,423	4,667	2,941	580
	%	30.5	41.6	9.8	10.3	6.5	1.3
My current teachers have taught me how to use technology (computers and Internet) to do my schoolwork.	*n*	7,876	15,653	7,489	8,379	4,881	914
	%	17.4	34.6	16.6	18.5	10.8	2.0
I trust my teacher(s).	*n*	6,974	16,682	11,368	4,359	3,985	1,796
	%	15.4	36.9	25.2	9.7	8.8	4.0
My parents are proud of what I have accomplished in school this year.	*n*	13,942	16,761	6,772	2,902	2,010	2,640
	%	31.0	37.2	15.0	6.5	4.5	5.9
(High School Only) School staff has helped me to select high level courses that challenge my abilities.	*n*	8,499	17,206	8,490	5,656	3,577	1,654
	%	18.9	38.2	18.8	12.6	7.9	3.7
(High School Only) I have used the district's Virtual Counselor website, during this school year, to review my school records.	*n*	12,379	15,321	4,440	6,672	5,007	1,289
	%	27.4	34.0	9.8	14.8	11.1	2.9
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	15,717	18,886	4,550	2,229	1,617	2,163
	%	34.8	41.8	10.1	4.9	3.6	4.8
I experienced technical problems when completing this survey.	*n*	2,181	3,624	3,756	14,305	19,319	1,864
	%	4.8	8.0	8.3	31.8	42.9	4.1

Staff Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	1,138	947	77	113	13	5
I believe all students can succeed.	%	49.6	41.3	3.4	4.9	0.6	0.2
The school provides adequate resources for me to	*n*	693	1,062	190	265	64	7
teach my students.	%	30.4	46.6	8.3	11.6	2.8	0.3
I inform parents about their children's progress	*n*	843	1,176	159	89	3	10
in school on a regular basis.	%	37.0	51.6	7.0	3.9	0.1	0.4
I regularly assess students and inform them of	*n*	1,416	813	38	9	0	6
their academic progress.	%	62.1	35.6	1.7	0.4	0.0	0.3
I work with each student to explain material in a	*n*	1,341	853	53	22	3	9
way that he/she can understand.	%	58.8	37.4	2.3	1.0	0.1	0.4
	n	1,791	476	16	3	0	2
I treat all my students with fairness.	%	78.3	20.8	0.7	0.1	0.0	0.1
	n	905	1,111	128	122	19	4
My students show me respect.	%	39.5	48.5	5.6	5.3	0.8	0.2
	n	695	1,161	269	132	14	18
The students are safe at school.	%	30.4	50.7	11.8	5.8	0.6	0.8
	n	884	1,098	171	109	16	5
I feel safe at my school.	%	38.7	48.1	7.5	4.8	0.7	0.2
	n	188	800	520	558	138	74
Students at school harass one another.	%	8.3	35.1	22.8	24.5	6.1	3.3
The student code of conduct is enforced fairly at	*n*	360	911	350	475	154	25
my school.	%	15.8	40.0	15.4	20.9	6.8	1.1
I have enough books and equipment to	*n*	617	913	202	391	136	19
effectively teach my students.	%	27.1	40.1	8.9	17.2	6.0	0.8
	n	1,012	935	207	100	22	4
I am proud of my school.	%	44.4	41.0	9.1	4.4	1.0	0.2
	n	756	1,022	189	234	84	2
My school is kept in good condition.	%	33.1	44.7	8.3	10.2	3.7	0.1
There is an adult at school that students and	*n*	1,043	1,040	126	24	9	37
parents can talk to about students' problems.	%	45.8	45.6	5.5	1.1	0.4	1.6
	n	738	1,037	331	98	17	41
I give challenging homework assignments.	%	32.6	45.8	14.6	4.3	0.8	1.8
My students meet with a guidance counselor	*n*	750	1,096	220	113	27	67
when necessary.	%	33.0	48.2	9.7	5.0	1.2	3.0
Parents or guardians share responsibility with	*n*	437	719	429	483	162	30
the school for the students' academic progress.	%	19.3	31.8	19.0	21.4	7.2	1.3
	n	1,171	1,003	57	18	1	6
I respond quickly to parents' requests.	%	51.9	44.5	2.5	0.8	0.0	0.3
My students have trouble learning because there	*n*	229	472	390	905	235	20
are too many students in my classroom.	%	10.2	21.0	17.3	40.2	10.4	0.9
The principal at my school responds to my	*n*	876	873	335	101	65	18
concerns.	%	38.6	38.5	14.8	4.5	2.9	0.8
I can rely on parents to help when achievement	*n*	206	923	535	459	130	16
or behavior problems occur with their child.	%	9.1	40.7	23.6	20.2	5.7	0.7

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
The principal does an effective job of running my school.	*n*	903	884	308	103	64	14
	%	39.7	38.8	13.5	4.5	2.8	0.6
Administrators are highly visible throughout my school.	*n*	836	979	195	200	60	7
	%	36.7	43.0	8.6	8.8	2.6	0.3
I am aware of the purposes and goals of my school.	*n*	1,042	1,064	115	36	17	6
	%	45.7	46.7	5.0	1.6	0.8	0.3
Students bring drugs or alcohol to this school.	*n*	126	604	626	372	156	391
	%	5.5	26.6	27.5	16.4	6.9	17.2
Students carry weapons at this school.	*n*	65	313	666	516	260	445
	%	2.9	13.8	29.4	22.8	11.5	19.7
Students bear responsibility for what they learn.	*n*	375	904	374	472	134	6
	%	16.6	39.9	16.5	20.8	5.9	0.3
The training I have received through staff development activities has enabled me to become a better teacher.	*n*	583	1,118	308	192	63	12
	%	25.6	49.1	13.5	8.4	2.8	0.5
My input on school decisions is solicited and valued.	*n*	440	937	456	269	135	33
	%	19.4	41.3	20.1	11.9	6.0	1.5
I am satisfied with the learning environment at my school.	*n*	425	1,113	331	313	84	3
	%	18.7	49.1	14.6	13.8	3.7	0.1
I am satisfied with the working conditions at my school.	*n*	491	1,118	296	250	112	3
	%	21.6	49.3	13.0	11.0	4.9	0.1
My school is clean.	*n*	574	1,077	193	305	115	3
	%	25.3	47.5	8.5	13.5	5.1	0.1
All students are accepted and feel like they belong at this school.	*n*	387	1,006	444	310	43	79
	%	17.1	44.3	19.6	13.7	1.9	3.5
My school provides adequate after-school activities/programs for students.	*n*	795	1,036	220	133	34	48
	%	35.1	45.7	9.7	5.9	1.5	2.1
I have met with guidance or other school staff this year to talk about my students' recent test scores.	*n*	574	1,035	278	291	69	16
	%	25.4	45.7	12.3	12.9	3.1	0.7
My students use computers at home to complete assignments.	*n*	390	968	396	287	79	146
	%	17.2	42.7	17.5	12.7	3.5	6.4
I have taught my current students how to use technology (computers and Internet) to do their schoolwork.	*n*	637	950	312	306	44	17
	%	28.1	41.9	13.8	13.5	1.9	0.8
My students trust me.	*n*	1,153	1,018	66	5	0	24
	%	50.9	44.9	2.9	0.2	0.0	1.1
I have been given adequate training to use technology (computers and Internet) to teach my students.	*n*	779	1,027	227	185	39	6
	%	34.4	45.4	10.0	8.2	1.7	0.3
I compare my current students' test scores to state standards to guide instruction.	*n*	650	1,127	308	131	29	17
	%	28.7	49.8	13.6	5.8	1.3	0.8

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
I have met with guidance staff, reading coaches, and other support staff this year to identify strategies for increasing student achievement among the lowest 25% of students.	*n*	811	1,078	203	127	35	12
	%	35.8	47.6	9.0	5.6	1.5	0.5
(High School Only) This year, school staff has helped my students to select high level courses that challenge their abilities.	*n*	489	939	302	122	47	99
	%	24.5	47.0	15.1	6.1	2.4	5.0
I have used data from the Virtual Counselor to plan the instructional activities for my students this year.	*n*	617	967	315	286	69	16
	%	27.2	42.6	13.9	12.6	3.0	0.7
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	1,442	753	25	36	7	6
	%	63.6	33.2	1.1	1.6	0.3	0.3
I experienced technical problems when completing this survey.	*n*	110	204	81	763	1,059	49
	%	4.9	9.0	3.6	33.7	46.7	2.2

Parent Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My child's teacher(s) believe(s) that he/she can succeed.	*n*	1,390	1,766	316	81	33	291
	%	35.9	45.6	8.2	2.1	0.9	7.5
My child's school has adequate resources for the instructions of my child.	*n*	814	2,120	424	233	95	174
	%	21.1	54.9	11.0	6.0	2.5	4.5
My child's teacher(s) inform(s) me about my child's progress on a regular basis.	*n*	415	1,285	668	968	470	59
	%	10.7	33.3	17.3	25.1	12.2	1.5
My child's teacher(s) inform(s) him/her about his/her academic progress.	*n*	664	1,857	529	461	184	162
	%	17.2	48.2	13.7	12.0	4.8	4.2
My child's teacher(s) present(s) material in a way appropriate for my child.	*n*	633	2,090	626	171	53	283
	%	16.4	54.2	16.2	4.4	1.4	7.3
My child's teacher(s) treat(s) him/her with fairness.	*n*	776	2,048	543	184	68	232
	%	20.2	53.2	14.1	4.8	1.8	6.0
	n	1,963	1,510	190	53	18	117
My child shows respect to his/her teacher(s).	%	51.0	39.2	4.9	1.4	0.5	3.0
	n	694	1,834	738	246	149	181
My child is safe at school.	%	18.1	47.7	19.2	6.4	3.9	4.7
	n	113	314	359	1,375	1,390	276
Students at school harass my child.	%	3.0	8.2	9.4	35.9	36.3	7.2
The student code of conduct is enforced fairly at my child's school.	*n*	583	1,674	675	305	199	407
	%	15.2	43.6	17.6	7.9	5.2	10.6
My child's school has enough books and equipment to effectively teach my child.	*n*	703	1,804	485	440	223	210
	%	18.2	46.7	12.6	11.4	5.8	5.4
	n	858	1,835	753	230	127	68
I am proud of my child's school.	%	22.2	47.4	19.5	5.9	3.3	1.8
	n	703	1,958	516	332	170	189
My child's school is kept in good condition.	%	18.2	50.6	13.3	8.6	4.4	4.9
There is an adult at school I can talk to about my child's problems.	*n*	841	1,874	535	215	104	300
	%	21.7	48.4	13.8	5.6	2.7	7.8
My child's homework assignments are challenging.	*n*	664	1,856	626	348	140	222
	%	17.2	48.1	16.2	9.0	3.6	5.8
My child meets with a guidance counselor when necessary.	*n*	756	1,865	493	311	157	269
	%	19.6	48.4	12.8	8.1	4.1	7.0
I share responsibility with the school for my child's academic progress.	*n*	1,291	1,910	377	168	46	64
	%	33.5	49.5	9.8	4.4	1.2	1.7
	n	505	1,466	949	419	198	302
The teachers respond quickly to my requests.	%	13.2	38.2	24.7	10.9	5.2	7.9
My child has trouble learning because there are too many students in his/her classroom.	*n*	219	462	708	1,522	675	243
	%	5.7	12.1	18.5	39.8	17.6	6.4
The principal at my child's school responds to my concerns.	*n*	460	1,078	1,166	262	205	673
	%	12.0	28.0	30.3	6.8	5.3	17.5
I help school staff when academic or behavioral problems occur with my child.	*n*	914	1,665	664	223	89	279
	%	23.8	43.4	17.3	5.8	2.3	7.3
The principal does an effective job of running my child's school.	*n*	858	1,751	650	162	111	337
	%	22.2	45.3	16.8	4.2	2.9	8.7
Administrators are highly visible throughout my child's school.	*n*	902	1,767	531	130	55	458
	%	23.5	46.0	13.8	3.4	1.4	11.9

Tables continues

Parent Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	768	1,828	603	258	110	273
I am aware of the goals of my child's school.	%	20.0	47.6	15.7	6.7	2.9	7.1
Students bring drugs or alcohol to my child's	*n*	366	679	652	449	341	1,347
school.	%	9.6	17.7	17.0	11.7	8.9	35.1
	n	211	401	716	619	418	1,453
Students carry weapons at my child's school.	%	5.5	10.5	18.8	16.2	11.0	38.1
	n	1,716	1,760	189	109	37	49
My child takes responsibility for learning.	%	44.5	45.6	4.9	2.8	1.0	1.3
My input on school decisions is solicited and	*n*	405	1,309	1,193	292	149	484
valued.	%	10.6	34.2	31.1	7.6	3.9	12.6
I am satisfied with the learning environment at	*n*	648	2,025	661	319	131	73
my child's school.	%	16.8	52.5	17.1	8.3	3.4	1.9
	n	644	1,833	563	378	238	194
My child's school is clean.	%	16.7	47.6	14.6	9.8	6.2	5.0
My child is accepted and feels like he or she	*n*	932	2,104	395	176	101	153
belongs at this school.	%	24.1	54.5	10.2	4.6	2.6	4.0
My child's school provides adequate after-school	*n*	980	1,771	438	208	92	350
activities/programs for students.	%	25.5	46.1	11.4	5.4	2.4	9.1
I have met with a guidance counselor or other school staff to talk about my child's recent test	*n*	446	1,059	523	1,230	468	110
scores.	%	11.6	27.6	13.6	32.1	12.2	2.9
My child uses computers at home to complete	*n*	1,647	1,636	205	222	95	55
assignments.	%	42.7	42.4	5.3	5.8	2.5	1.4
My child's current teachers have taught him/her how to use technology (computers and Internet)	*n*	730	1,635	536	462	211	275
to do his/her schoolwork.	%	19.0	42.5	13.9	12.0	5.5	7.1
	n	709	1,827	669	233	121	289
My child trusts his/her teachers.	%	18.4	47.5	17.4	6.1	3.1	7.5
	n	1,547	1,575	354	202	89	51
I am proud of my child's accomplishments in school this year.	%	40.5	41.3	9.3	5.3	2.3	1.3
I have used the district's Virtual Counselor	*n*	754	1,266	398	841	369	155
website to review my child's school records.	%	19.9	33.5	10.5	22.2	9.8	4.1
(High School Only) School staff has helped my	*n*	768	1,630	503	365	202	231
child to select high level courses that challenge	%	20.8	44.1	13.6	9.9	5.5	6.2

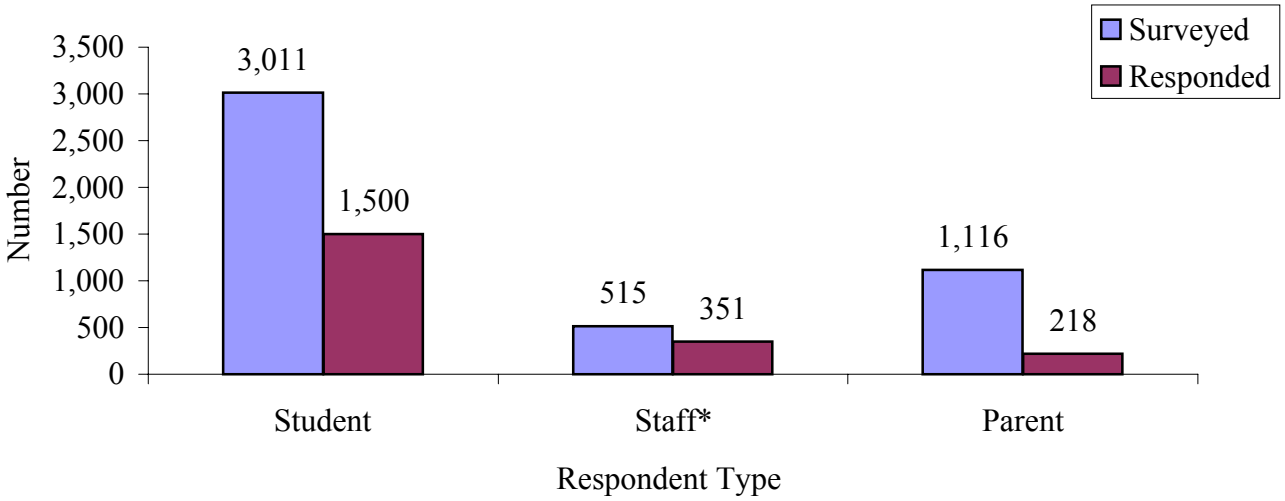
Improving Our Schools: 2004-05 Customer Survey

The Eleventh Annual Report of Student, Staff, and Parent Perspectives on Broward County Public Schools

Report for

Centers

This document contains data from the Eleventh Annual Customer Survey. The data are organized according to the three surveyed groups: students, staff, and parents. Findings presented herein are intended to assist school staff members in making decisions to improve school strategies. This year's data may be used in conjunction with data from previous years to monitor school progress. Prior year's data are available at http://www.broward.k12.fl.us/research_evaluation/reportpage/reports.htm. In addition, a school-by-school report linking data from the past three survey administrations will be released following the districtwide report.



*All staff who submitted a survey were included in this count and the staff responses section, however, only staff with class assignments were included in the teacher response rate.

Student Response Rate	Teacher Response Rate	Parent Response Rate
Online	Online	Paper
49.8%	64.3%	19.5%

School Grade Assigned by Students, Staff, and Parents

	Student		Staff		Parent	
	n	%	*n*	%	*n*	%
A	318	21.6	118	35.1	104	51.2
B	394	26.8	143	42.6	72	35.5
C	439	29.9	53	15.8	19	9.4
D	155	10.6	18	5.4	7	3.4
F	163	11.1	4	1.2	1	0.5

Student Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My teachers believe I can succeed.	*n*	658	542	124	49	30	90
	%	44.1	36.3	8.3	3.3	2.0	6.0
My school provides all of the resources I need for learning.	*n*	412	623	206	136	67	43
	%	27.7	41.9	13.9	9.2	4.5	2.9
My teacher(s) inform(s) my parents about my progress.	*n*	381	510	217	148	78	148
	%	25.7	34.4	14.6	10.0	5.3	10.0
My teacher(s) regularly tell(s) me how I am doing in school.	*n*	382	639	198	150	76	35
	%	25.8	43.2	13.4	10.1	5.1	2.4
My teacher(s) answer(s) my questions in a way that I can understand.	*n*	486	635	178	99	57	30
	%	32.7	42.8	12.0	6.7	3.8	2.0
My teacher(s) treat(s) me with fairness.	*n*	434	613	202	105	87	46
	%	29.2	41.2	13.6	7.1	5.9	3.1
I show respect to my teacher(s).	*n*	699	559	126	53	28	26
	%	46.9	37.5	8.5	3.6	1.9	1.7
I feel safe at my school.	*n*	315	504	266	151	171	80
	%	21.2	33.9	17.9	10.2	11.5	5.4
Students at school harass me.	*n*	128	162	132	389	597	71
	%	8.7	11.0	8.9	26.3	40.4	4.8
The student code of conduct is enforced fairly at my school.	*n*	311	488	286	158	119	120
	%	21.0	32.9	19.3	10.7	8.0	8.1
My school has enough books and equipment to help me learn.	*n*	401	551	201	160	119	59
	%	26.9	37.0	13.5	10.7	8.0	4.0
I am proud of my school.	*n*	286	382	321	189	235	66
	%	19.3	25.8	21.7	12.8	15.9	4.5
My school is kept in good condition.	*n*	328	564	272	141	117	57
	%	22.2	38.1	18.4	9.5	7.9	3.9
There is an adult at school I can talk to about my personal problems.	*n*	438	471	178	121	146	129
	%	29.5	31.8	12.0	8.2	9.8	8.7
My homework assignments help to reinforce what I am learning at school.	*n*	291	460	287	141	170	138
	%	19.6	30.9	19.3	9.5	11.4	9.3
I can meet with a guidance counselor when necessary.	*n*	456	628	151	97	89	66
	%	30.7	42.2	10.2	6.5	6.0	4.4
I have someone at home who is able to help me with my homework assignments.	*n*	481	521	184	142	102	55
	%	32.4	35.1	12.4	9.6	6.9	3.7
I have trouble learning because there are too many students in my classroom.	*n*	102	133	179	535	469	65
	%	6.9	9.0	12.1	36.1	31.6	4.4
The principal at my school helps me when I have concerns.	*n*	253	342	294	199	227	166
	%	17.1	23.1	19.9	13.4	15.3	11.2
My principal is effective at running my school.	*n*	359	427	262	94	130	202
	%	24.4	29.0	17.8	6.4	8.8	13.7
I see the school staff members around my school.	*n*	538	686	130	29	34	59
	%	36.5	46.5	8.8	2.0	2.3	4.0
I am aware of the purposes and goals of my school.	*n*	458	611	184	62	60	97
	%	31.1	41.5	12.5	4.2	4.1	6.6
Students bring drugs or alcohol to my school.	*n*	179	196	217	184	233	461
	%	12.2	13.3	14.8	12.5	15.9	31.4

Tables continues

Student Responses *(continued).*

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
Students carry weapons at my school.	*n*	141	159	213	208	259	494
	%	9.6	10.8	14.5	14.1	17.6	33.5
I am responsible for what I learn.	*n*	637	590	120	42	44	38
	%	43.3	40.1	8.2	2.9	3.0	2.6
My principal and teachers ask what I think about things around school.	*n*	224	330	287	284	227	121
	%	15.2	22.4	19.5	19.3	15.4	8.2
I am satisfied with the learning environment at my school.	*n*	333	525	283	147	134	53
	%	22.6	35.6	19.2	10.0	9.1	3.6
My school is clean.	*n*	331	545	266	126	149	58
	%	22.4	37.0	18.0	8.5	10.1	3.9
I am accepted and feel like I belong at this school.	*n*	293	446	251	168	236	74
	%	20.0	30.4	17.1	11.4	16.1	5.0
My school has after-school activities/programs for students.	*n*	141	219	169	243	345	354
	%	9.6	14.9	11.5	16.5	23.5	24.1
I have met with a guidance counselor, teachers, or other school staff this year to talk about recent test scores.	*n*	290	451	230	254	163	90
	%	19.6	30.5	15.6	17.2	11.0	6.1
I use computers at home to complete assignments.	*n*	210	333	214	387	269	61
	%	14.3	22.6	14.5	26.3	18.3	4.1
My current teachers have taught me how to use technology (computers and Internet) to do my schoolwork.	*n*	338	459	178	244	194	54
	%	23.0	31.3	12.1	16.6	13.2	3.7
I trust my teacher(s).	*n*	412	469	250	121	136	83
	%	28.0	31.9	17.0	8.2	9.3	5.6
My parents are proud of what I have accomplished in school this year.	*n*	477	455	202	98	86	144
	%	32.6	31.1	13.8	6.7	5.9	9.9
(High School Only) School staff has helped me to select high level courses that challenge my abilities.	*n*	197	319	242	135	112	106
	%	17.7	28.7	21.8	12.2	10.1	9.5
(High School Only) I have used the district's Virtual Counselor website, during this school year, to review my school records.	*n*	178	279	176	240	153	87
	%	16.0	25.1	15.8	21.6	13.8	7.8
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	457	523	180	92	82	132
	%	31.2	35.7	12.3	6.3	5.6	9.0
I experienced technical problems when completing this survey.	*n*	119	201	152	417	476	98
	%	8.1	13.7	10.4	28.5	32.5	6.7

Staff Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
	n	209	110	14	8	0	0
I believe all students can succeed.	%	61.3	32.3	4.1	2.4	0.0	0.0
The school provides adequate resources for me to	*n*	142	143	22	29	5	0
teach my students.	%	41.6	41.9	6.5	8.5	1.5	0.0
I inform parents about their children's progress	*n*	151	147	28	7	1	3
in school on a regular basis.	%	44.8	43.6	8.3	2.1	0.3	0.9
I regularly assess students and inform them of	*n*	214	114	8	0	1	1
their academic progress.	%	63.3	33.7	2.4	0.0	0.3	0.3
I work with each student to explain material in a	*n*	246	85	8	0	0	1
way that he/she can understand.	%	72.4	25.0	2.4	0.0	0.0	0.3
	n	286	54	2	0	0	0
I treat all my students with fairness.	%	83.6	15.8	0.6	0.0	0.0	0.0
	n	141	155	22	19	4	0
My students show me respect.	%	41.4	45.5	6.5	5.6	1.2	0.0
	n	140	158	27	12	2	3
The students are safe at school.	%	40.9	46.2	7.9	3.5	0.6	0.9
	n	137	155	25	21	2	1
I feel safe at my school.	%	40.2	45.5	7.3	6.2	0.6	0.3
	n	43	113	67	69	35	11
Students at school harass one another.	%	12.7	33.4	19.8	20.4	10.4	3.3
The student code of conduct is enforced fairly at	*n*	103	157	37	27	12	5
my school.	%	30.2	46.0	10.9	7.9	3.5	1.5
I have enough books and equipment to	*n*	128	136	33	32	9	1
effectively teach my students.	%	37.8	40.1	9.7	9.4	2.7	0.3
	n	179	124	28	6	2	0
I am proud of my school.	%	52.8	36.6	8.3	1.8	0.6	0.0
	n	158	137	25	14	3	0
My school is kept in good condition.	%	46.9	40.7	7.4	4.2	0.9	0.0
There is an adult at school that students and	*n*	208	110	13	1	1	1
parents can talk to about students' problems.	%	62.3	32.9	3.9	0.3	0.3	0.3
	n	66	107	114	25	6	14
I give challenging homework assignments.	%	19.9	32.2	34.3	7.5	1.8	4.2
My students meet with a guidance counselor	*n*	158	131	25	12	5	5
when necessary.	%	47.0	39.0	7.4	3.6	1.5	1.5
Parents or guardians share responsibility with	*n*	63	93	67	89	18	4
the school for the students' academic progress.	%	18.9	27.8	20.1	26.7	5.4	1.2
	n	195	118	20	2	0	2
I respond quickly to parents' requests.	%	57.9	35.0	5.9	0.6	0.0	0.6
My students have trouble learning because there	*n*	16	32	52	143	91	4
are too many students in my classroom.	%	4.7	9.5	15.4	42.3	26.9	1.2
The principal at my school responds to my	*n*	149	128	34	14	14	0
concerns.	%	44.0	37.8	10.0	4.1	4.1	0.0
I can rely on parents to help when achievement	*n*	29	100	90	81	32	3
or behavior problems occur with their child.	%	8.7	29.9	26.9	24.2	9.6	0.9

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
The principal does an effective job of running my school.	*n*	137	138	30	18	13	2
	%	40.5	40.8	8.9	5.3	3.9	0.6
Administrators are highly visible throughout my school.	*n*	155	150	17	10	8	0
	%	45.6	44.1	5.0	2.9	2.4	0.0
I am aware of the purposes and goals of my school.	*n*	190	135	10	4	0	0
	%	56.1	39.8	3.0	1.2	0.0	0.0
Students bring drugs or alcohol to this school.	*n*	11	68	75	78	66	41
	%	3.2	20.1	22.1	23.0	19.5	12.1
Students carry weapons at this school.	*n*	5	30	68	100	80	55
	%	1.5	8.9	20.1	29.6	23.7	16.3
Students bear responsibility for what they learn.	*n*	48	146	60	67	14	4
	%	14.2	43.1	17.7	19.8	4.1	1.2
The training I have received through staff development activities has enabled me to become a better teacher.	*n*	137	157	28	13	1	1
	%	40.7	46.6	8.3	3.9	0.3	0.3
My input on school decisions is solicited and valued.	*n*	79	162	49	33	16	1
	%	23.2	47.7	14.4	9.7	4.7	0.3
I am satisfied with the learning environment at my school.	*n*	86	168	46	33	6	0
	%	25.4	49.6	13.6	9.7	1.8	0.0
I am satisfied with the working conditions at my school.	*n*	94	167	32	31	10	0
	%	28.1	50.0	9.6	9.3	3.0	0.0
My school is clean.	*n*	124	146	31	30	4	0
	%	37.0	43.6	9.3	9.0	1.2	0.0
All students are accepted and feel like they belong at this school.	*n*	116	151	37	23	0	7
	%	34.7	45.2	11.1	6.9	0.0	2.1
My school provides adequate after-school activities/programs for students.	*n*	49	58	85	58	47	30
	%	15.0	17.7	26.0	17.7	14.4	9.2
I have met with guidance or other school staff this year to talk about my students' recent test scores.	*n*	102	151	52	24	4	5
	%	30.2	44.7	15.4	7.1	1.2	1.5
My students use computers at home to complete assignments.	*n*	28	72	77	93	34	33
	%	8.3	21.4	22.9	27.6	10.1	9.8
I have taught my current students how to use technology (computers and Internet) to do their schoolwork.	*n*	101	137	63	25	5	7
	%	29.9	40.5	18.6	7.4	1.5	2.1
My students trust me.	*n*	173	153	10	2	0	2
	%	50.9	45.0	2.9	0.6	0.0	0.6
I have been given adequate training to use technology (computers and Internet) to teach my students.	*n*	113	150	41	32	4	0
	%	33.2	44.1	12.1	9.4	1.2	0.0
I compare my current students' test scores to state standards to guide instruction.	*n*	86	153	61	21	5	11
	%	25.5	45.4	18.1	6.2	1.5	3.3

Tables continues

Staff Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
I have met with guidance staff, reading coaches, and other support staff this year to identify strategies for increasing student achievement among the lowest 25% of students.	*n*	142	148	34	8	3	2
	%	42.1	43.9	10.1	2.4	0.9	0.6
(High School Only) This year, school staff has helped my students to select high level courses that challenge their abilities.	*n*	0	1	0	0	0	0
	%	0.0	100.0	0.0	0.0	0.0	0.0
I have used data from the Virtual Counselor to plan the instructional activities for my students this year.	*n*	50	103	84	74	19	4
	%	15.0	30.8	25.2	22.2	5.7	1.2
There was a computer terminal readily available when I was ready to respond to this survey.	*n*	218	106	5	6	4	0
	%	64.3	31.3	1.5	1.8	1.2	0.0
I experienced technical problems when completing this survey.	*n*	28	42	15	120	127	5
	%	8.3	12.5	4.5	35.6	37.7	1.5

Parent Responses

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
My child's teacher(s) believe(s) that he/she can succeed.	*n*	102	87	10	2	3	8
	%	48.1	41.0	4.7	0.9	1.4	3.8
My child's school has adequate resources for the instructions of my child.	*n*	83	97	13	7	4	9
	%	39.0	45.5	6.1	3.3	1.9	4.2
My child's teacher(s) inform(s) me about my child's progress on a regular basis.	*n*	112	77	9	11	3	2
	%	52.3	36.0	4.2	5.1	1.4	0.9
My child's teacher(s) inform(s) him/her about his/her academic progress.	*n*	85	83	21	4	4	10
	%	41.1	40.1	10.1	1.9	1.9	4.8
My child's teacher(s) present(s) material in a way appropriate for my child.	*n*	91	102	10	1	1	7
	%	42.9	48.1	4.7	0.5	0.5	3.3
My child's teacher(s) treat(s) him/her with fairness.	*n*	115	80	9	1	0	8
	%	54.0	37.6	4.2	0.5	0.0	3.8
	n	69	90	34	7	0	9
My child shows respect to his/her teacher(s).	%	33.0	43.1	16.3	3.4	0.0	4.3
	n	86	94	14	4	0	5
My child is safe at school.	%	42.4	46.3	6.9	2.0	0.0	2.5
	n	10	32	36	49	56	22
Students at school harass my child.	%	4.9	15.6	17.6	23.9	27.3	10.7
The student code of conduct is enforced fairly at my child's school.	*n*	68	100	21	3	1	14
	%	32.9	48.3	10.1	1.5	0.5	6.8
My child's school has enough books and equipment to effectively teach my child.	*n*	71	85	26	4	4	23
	%	33.3	39.9	12.2	1.9	1.9	10.8
	n	93	92	19	3	4	0
I am proud of my child's school.	%	44.1	43.6	9.0	1.4	1.9	0.0
	n	92	104	7	2	1	6
My child's school is kept in good condition.	%	43.4	49.1	3.3	0.9	0.5	2.8
There is an adult at school I can talk to about my child's problems.	*n*	119	83	5	0	2	2
	%	56.4	39.3	2.4	0.0	1.0	1.0
My child's homework assignments are challenging.	*n*	30	67	57	19	13	17
	%	14.8	33.0	28.1	9.4	6.4	8.4
My child meets with a guidance counselor when necessary.	*n*	60	72	33	7	2	30
	%	29.4	35.3	16.2	3.4	1.0	14.7
I share responsibility with the school for my child's academic progress.	*n*	99	99	13	1	1	0
	%	46.5	46.5	6.1	0.5	0.5	0.0
	n	103	82	11	8	1	4
The teachers respond quickly to my requests.	%	49.3	39.2	5.3	3.8	0.5	1.9
My child has trouble learning because there are too many students in his/her classroom.	*n*	4	21	18	86	69	9
	%	1.9	10.1	8.7	41.6	33.3	4.4
The principal at my child's school responds to my concerns.	*n*	66	84	26	7	5	21
	%	31.6	40.2	12.4	3.4	2.4	10.1
I help school staff when academic or behavioral problems occur with my child.	*n*	80	104	17	4	0	6
	%	37.9	49.3	8.1	1.9	0.0	2.8
The principal does an effective job of running my child's school.	*n*	93	85	15	3	2	15
	%	43.7	39.9	7.0	1.4	0.9	7.0
Administrators are highly visible throughout my child's school.	*n*	98	79	14	4	0	15
	%	46.7	37.6	6.7	1.9	0.0	7.1

Tables continues

Parent Responses *(continued)*.

		Strongly Agree	Agree	Undecided/ Neutral	Disagree	Strongly Disagree	Don't Know
I am aware of the goals of my child's school.	*n*	84	99	16	1	2	8
	%	40.0	47.1	7.6	0.5	1.0	3.8
Students bring drugs or alcohol to my child's school.	*n*	5	15	12	28	80	64
	%	2.5	7.4	5.9	13.7	39.2	31.4
Students carry weapons at my child's school.	*n*	3	16	13	30	88	58
	%	1.4	7.7	6.3	14.4	42.3	27.9
My child takes responsibility for learning.	*n*	41	99	42	15	5	4
	%	19.9	48.1	20.4	7.3	2.4	1.9
My input on school decisions is solicited and valued.	*n*	50	105	38	3	3	12
	%	23.7	49.8	18.0	1.4	1.4	5.7
I am satisfied with the learning environment at my child's school.	*n*	84	98	21	3	2	3
	%	39.8	46.5	10.0	1.4	1.0	1.4
My child's school is clean.	*n*	103	88	11	3	0	6
	%	48.8	41.7	5.2	1.4	0.0	2.8
My child is accepted and feels like he or she belongs at this school.	*n*	91	88	15	6	5	4
	%	43.5	42.1	7.2	2.9	2.4	1.9
My child's school provides adequate after-school activities/programs for students.	*n*	48	47	28	12	19	50
	%	23.5	23.0	13.7	5.9	9.3	24.5
I have met with a guidance counselor or other school staff to talk about my child's recent test scores.	*n*	51	80	21	33	11	6
	%	25.3	39.6	10.4	16.3	5.5	3.0
My child uses computers at home to complete assignments.	*n*	27	45	30	71	32	4
	%	12.9	21.5	14.4	34.0	15.3	1.9
My child's current teachers have taught him/her how to use technology (computers and Internet) to do his/her schoolwork.	*n*	52	72	33	22	8	21
	%	25.0	34.6	15.9	10.6	3.9	10.1
My child trusts his/her teachers.	*n*	97	87	20	1	1	6
	%	45.8	41.0	9.4	0.5	0.5	2.8
I am proud of my child's accomplishments in school this year.	*n*	96	87	13	3	4	0
	%	47.3	42.9	6.4	1.5	2.0	0.0
I have used the district's Virtual Counselor website to review my child's school records.	*n*	11	22	41	62	46	15
	%	5.6	11.2	20.8	31.5	23.4	7.6
(High School Only) School staff has helped my child to select high level courses that challenge	*n*	17	30	25	4	10	16
	%	16.7	29.4	24.5	3.9	9.8	15.7

Section X – Addendum—E-Rate Planning Criteria

Plan components #10 and #11 are considered "essential" to participation in the federal E-Rate and NCLB: Enhancing Education Through Technology programs respectively. Planning information associated with these two components will be referenced as formal plan addenda and will be considered as integral to the district's basic technology plan. These two essential planning components have been designed to address "program-specific" information requirements. Certain planning elements covered under these components may have been addressed to one degree or another within Essential Components 1-9. However, information documented under these two components require clear alignment to service requests (E-Rate Form 470's), or must be directly associated with the expenditure of grant funds to effectively address program planning expectations.

AGENDA REQUEST FORM
THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

Meeting Date	Open Agenda	Time Certain Request	Agenda Item Number
9/21/04	Yes No	Yes No	I-4

TITLE:

Technology Plan Addendum

REQUESTED ACTION:

Approve the E-Rate Addendum to the district's currently approved Information Technology Plan 2002-2007 for Submittal to the Florida Department of Education.

SUMMARY EXPLANATION AND BACKGROUND:

Florida school districts are required to have state-approved technology documentation on file in order to qualify for state and federal technology funding. On December 4, 2001 the Broward School Board approved the submission of Broward's compliance document (item I-1) which was assembled to state criteria. On June 15, 2004, the Broward School Board approved the E-rate addendum for the 2004-05 program year. Federal program rules have been adopted that require annual updates to the E-Rate addendum. This technology plan update satisfies E-Rate technology planning criteria for the 2005-06 program year.

SCHOOL BOARD GOALS:

__ •Goal One: All students will achieve at their highest potential.
__ •Goal Two: All schools will have equitable resources.
X •Goal Three: All operations of the school system will demonstrate best practices while supporting student achievement.
__ •Goal Four: All stakeholders will work together to build a better school system.

FINANCIAL IMPACT:

None

EXHIBITS: (List)

District Technology Plan Submission Form
Superintendent Cover Letter
E-Rate Technology Plan Addendum

BOARD ACTION:	SOURCE OF ADDITIONAL INFORMATION:
APPROVED	Mary Baker 754-321-0306
(For Official School Board Records' Office Only)	Name Phone

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
Vijay Sonty, Chief Information Officer

Approved in Open Board Meeting on: SEP 2 1 2004

School Board Chair

By:
Revised July 31, 2003
FT/VS/MB

FLORIDA DEPARTMENT OF EDUCATION
DISTRICT TECHNOLOGY PLAN SUBMISSION

Please forward technology planning materials to:	**District Technology Plan Internet Address/URL (if available):**	**DOE OFFICE OF EDUCATIONAL TECHNOLOGY USE**
Florida Department of Education Office of Educational Technology Room 1101 Turlington Building 325 West Gaines Street Tallahassee, Florida 32399-0400 Telephone: (850) 245-0514 Suncom: 205-0514	http://www.broward.k12.fl.us/itp DOE OFFICE OF EDUCATIONAL TECHNOLOGY (OET) http://www.doe.fldn.edu/edtech	Date Received:

Name and Address of School District:	**PLAN SUBMISSION NOTES**
The School Board of Broward County, Florida 600 SouthEast Third Avenue Fort Lauderdale, Florida 33301	Districts participating in the federal E-Rate program that have completed an E-Rate Plan Addendum should include that material with any technology plan submission. Forwarding an E-Rate plan addendum for preliminary review is an option for districts, but a full plan must be submitted in order to obtain an updated technology plan agency approval letter. [E-Rate plan addendum preparation guidance is provided in conjunction with Essential Component #10].

Technology Plan Contact Information

Contact Name: Mary Baker	Mailing Address: 7720 West Oakland Park Blvd Sunrise, FL 33351
Telephone Number: 754-321-0306	SunCom Number:
Fax Number: 754-321-0908	E-mail Address: Mary.baker@browardschools.com

TECHNOLOGY PLAN AUTHORIZATION

I, Dr. Franklin L. Till, Jr., do hereby certify that this document accurately represents the current status of technology planning in the district. All records necessary to substantiate facts, figures, or representations made in this plan will be available for review by appropriate state and federal staff.

Formal governing body approval has been provided for this planning document: ☐ Approval date

This planning document is being submitted pending formal governing body approval: ☐

E) _____
Signature of Agency Head

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

600 SOUTHEAST THIRD AVENUE * FT. LAUDERDALE, FL * 33301-3125 * TEL 754-321-2600 FAX 754-321-2701

DR. FRANK TILL
Superintendent of Schools

SCHOOL BOARD

September 21, 2004

Florida Department of Education
Office of Educational Technology
Room 1101 Turlington Building
325 West Gaines Street
Tallahassee, Florida 32399-0400

To Whom It May Concern:

Per the criteria of the Florida Department of Education, Broward County Public Schools is submitting the attached update to its existing School Board approved and State approved District Technology Plan. The update is Addendum #10 for "E-Rate Planning" and consists of the following documents:

- E-rate Technology Plan Certifications & Addendum 2005-2006
- E-rate Technology Budget

All plans of Broward County Public Schools are reviewed annually. If there are changes to the approved Technology Plan, they will be submitted to the State following Board of Education approval.

Sincerely,

Frank Till
Superintendent of Schools

Attachments

FT/VS/MB:sk

E-rate Technology Plan
Certifications & Addendum*
Funding Year 2005-2006

District/School Name:	The School Board of Broward County, Florida	**Contact Name:**	Doug Pearce
Billed Entity #: *(As assigned by the Schools & Libraries Division)*	127743	**Contact Title:**	District Network Coordinator
Regional Educational Consortium: (If applicable)		**Contact Phone:**	754-321-0308
		Contact Email:	Doug.pearce@browardschools.com

Please read the following three main statements and one sub-choice & check box(s) as appropriate for your district: *Please note that all districts already have a Florida approved technology plan on file. The following statements are regarding adding an update or addendum to the original technology plan to comply with the SLD criteria that technology plans include all Form 470 items (except for basic phone service).* ***Please check appropriate box(s).***

☐ Our district did not submit an E-rate application for Funding Year 2005-2006, thus the E-rate Technology Plan Addendum is not applicable.

☐ Our district is filing only for *basic telecommunication services* (basic local/long distance only, not including voice mail, Centrex, etc.) for Funding Year 2005-2006, thus the E-rate Technology Plan Addendum is not applicable. (Note: If you use IN then you need a technology plan)

✖ Our district is filing for more than basic *telecommunication services* for Funding Year 2005-2006.
✖ An E-rate Technology Plan Addendum has been completed and attached to this certification page.

Our district also certifies to the following conditions:

- all Form 470s and use of state master contract Form 470(s) submitted for Funding Year 2005-2006 are based on the district technology plan; and all Form 470 items (besides basic telecommunications) can be found in the technology plan and/or addendum; and
- although the basic structure of our technology plan has been approved, we understand that E-rate rules require a level of consistency between technology plans and E-rate funding requests that may not be subject to review under the Florida technology plan approval process. Therefore, we agree to be held responsible if our technology plan is found to be inconsistent with our Form 470s and/or 471s for Funding Year 2005-2006.

Vijay Sonty
Superintendent/Responsible Person's Signature

Vijay Sonty
Print Name

Chief Information Officer

***Request District/School Submit This Page**
(Even if the attached addendum is not submitted)

Requested Suspense: October 10, 2004

Questions: Please call 850-245-9326 or email Maureen.Githens@fldoe.org

E-rate Technology Plan Addendum

Funding Year 2005-2006

Please enter appropriate and, concise responses necessary to fulfill the plan addendum guidelines as prescribed below (i.e., use only the amount of space needed for the services and/or items listed).
NOTE: The current technology plan may be cited by page and paragraph to prevent having to create new technology plan. The material provided must address each E-rate plan criteria area discussed below. Complete and accurate responses will be needed to meet the intent of the E-rate Plan Addendum.

Telecom Services, Internet Access & Internal Connections	Goals & Strategies	Professional Development	Budget	Monitoring & Evaluation
There are no new services requested in program year 8 (SY05-06), and no new Form 470 will be issued. The district will submit funding requests for services solicited in program year 7 (SY 04-05) per Form 470 #11570000460331 Telecommunications, Internal Connections and Internet in 9 groups: 1. Wired network equipment & maintenance 2. Wireless Network equipment & maintenance 3. Communication Cabling 4. Voice Equipment & Maintenance Services 5. Voice Services 6. WAN Services 7. Internet Service 8. Cellular Services 9. Pager Services SBBC E.T.P. Section X Page 6 of 9	**Reference SBBC District Technology Plan Section 1,** "Goals and Objectives". Goal 1: All students and educators will have equitable and effective access to technology during and beyond the school day.	**Reference SBBC District technology plan Section 8.**	**Reference SBBC District Technology Plan Section 4.** The district has a fiscal practice of budgeting 100% for projected technology projects. Both discounted and non-discounted portions of E-rate eligible projects are budgeted at 100% in either the district's utility budget or capital budget.	**The district technology plan is preambled by a *Frameworks* section,** which describes the district's adoption of the ***Sterling Model of Continuous Improvement.*** "Frameworks" also contains the district's Strategic Plan. The district technology plan is aligned with the district's Strategic Plan. Objectives are quantified, and performance is monitored and reported monthly through the district's strategic planning calendar. The attached graphic illustrates the interaction and continuous improvement cycle. **District technology plan Section 5.1** describes the "Technology Standards Process" and **section 5.5** "Procedure for Pilots, Demonstrations and Technology Reviews". Additionally, there are two vehicles outside of the technology department that routinely monitor and evaluate the district's technology program. The Research and Evaluation Department conducts an annual "School Climate Survey" of students, teachers and parents. The climate survey includes a section on school technology. The Internal Audit department routinely audits technology projects for their attainment of stated goals. Both reports issue findings and recommendations.

Florida Eligible Entities that have FLDOE Approved Technology Plans

E-rate Technology Plan Addendum & Certification

For E-Rate Funding Purposes

Funding Year 2006-2007

In an effort to address additional technology planning expectations of the Schools and Libraries Division (SLD) of The Universal Service Administrative Company (USAC) for the E-Rate program, the Florida Department of Education is providing this template to eligible entities. This plan addendum process is applicable to entities that submit their technology plans to the Office of Educational Technology for approval, in order to amend their current technology plans as necessary. The plan addendum is intended to address program expectations as follows:

An assessment of the telecommunication services, Internet access, and internal connections needed to improve education that are *requested on Form 470 and the Form 471 for E-Rate Funding Year 2006-2007* ***(i.e. the Form 470(s) reflects what is in your technology plan—Note: This includes the use of a state master contract's Form 470(s)*** **as well). The following are needed also:**

- **Clear goals and a realistic strategy** for using the requested telecommunications and information technology to improve education or library services;
- **A professional development strategy** to ensure that staff know how to use these new technologies to improve education or library services;
- **A sufficient budget** to acquire and support the non-discounted elements of the plan: the hardware, software, professional development, and other services that will be needed to implement the strategy; THE BUDGET portion must CLEARLY state that your entity has estimated the amount of NON-DISCOUNTED portion of E-rate and have the budget to meet that expense. In addition, if there are ancillary requirements to make the requested E-rate services work e.g. computers, software, professional development, then that needs to be estimated. Your entities' budget needs to reflect the amount and that you can meet those requirements, and
- **An evaluation process** that enables the school or library to monitor progress toward the specific goals and make mid-course (i.e. mid-year), corrections in response to new developments and opportunities as they arise.

During the September 2004 Train-the-Trainer session held in Washington D.C., the Schools and Libraries Division (SLD) stated that they will be enforcing the original ruling that all applicants must have a technology plan written prior to filing a Form 470 for the upcoming funding year. The SLD also requires that the technology plan include all items/services that will be listed on the Form 470 except for basic phone services (wireline/wireless phone lines). **The E-rate technology plan must be approved prior to the time services requested on the Form 470 begin (e.g. normally July 1 of the FY).**

Entities are asked to submit the attached certification page discussing their application for E-rate discounts for Funding Year 2006-2007. If an entity chose to apply for E-rate discounts, they are requested to also submit the technology plan addendum section of this document. Note: If your district/school uses FIRN, a technology plan is necessary. The addendum requests the entity to list in detail the services that were sought on the Form 470(s) for Funding Year 2006-2007.

NOTE:

Request all entities (not libraries) complete & submit the Addendum Certification Page whether or not they submit the E-rate Technology Plan Addendum. The Certification Page is next.

Requested Suspense
March 31, 2006
Mail: **Maureen P. Githens**
B1-14 Turlington Bldg
325 W. Gaines Street
Tallahassee, FL 32399
For more information contact: Maureen at 850-245-9326 or Maureen.Githens@fldoe.org

E-rate Technology Plan
Certifications & Addendum*
Funding Year 2006-2007

District/School Name:	The School Board of Broward County, FL	Contact Name:	Michelle Gresham
Billed Entity #: (As assigned by the District's E-rate Service Provider)	127743	Contact Title:	Systems Analyst III
Regional Educational Consortium: (If applicable)		Contact Phone:	754-321-0446
		Contact Email:	Michelle.gresham@browardschools.com

Please read the following three main statements and one sub-choice & check box(s) as appropriate for your district: *Please note that all districts already have a Florida approved technology plan on file. The following statements are regarding adding an update or addendum to the original technology plan to comply with the SLD criteria that technology plans include all Form 470 items (except for basic phone service).* ***Please check appropriate box(s).***

☐ Our district did not submit an E-rate application for Funding Year 2006-2007, thus the E-rate Technology Plan Addendum is not applicable.

☐ Our district is filing only for *basic telecommunication services* (basic local/long distance only, not including voice mail, Centrex, etc.) for Funding Year 2006-2007, thus the E-rate Technology Plan Addendum is not applicable. (Note: If you use FIRN then you need a technology plan)

☑ Our district is filing for more than basic *telecommunication services* for Funding Year 2006-2007.
☑ An E-rate Technology Plan Addendum has been completed and attached to this certification page.

Our district also certifies to the following conditions:

- all Form 470s and use of state master contract Form 470(s) submitted for Funding Year 2006-2007 are based on the district technology plan; and all Form 470 items (besides basic telecommunications) can be found in the technology plan and/or addendum; and
- although the basic structure of our technology plan has been approved, we understand that E-rate rules require a level of consistency between technology plans and E-rate funding requests that may not be subject to review under the Florida technology plan approval process. Therefore, we agree to be held responsible if our technology plan is found to be inconsistent with our Form 470s and/or 471s for Funding Year 2006-2007.

Vijay Sonty
Superintendent/Responsible Person's Signature

VIJAY SONTY
Print Name

CHIEF INFORMATION OFFICER
Title

***Request District/School Submit This Page**
(Even if the attached addendum is not submitted)

Requested Tech Plan Submission by April 20, 2006
Please follow technology plan submission procedures at:
http://www.doe.firn.edu/edtech/it/tp/index.html
Questions: Please call 850-245-9326 or email Maureen.Githens@fldoe.org

E-rate Technology Plan Addendum

Funding Year 2006-2007

Please enter appropriate and, concise responses necessary to fulfill the plan addendum guidelines as prescribed below (i.e., use only the amount of space needed for the services and/or items listed).
NOTE: The current technology plan may be cited by page and paragraph to prevent having to create new technology plan. The material provided must address each E-rate plan criteria area discussed below. Complete and accurate responses will be needed to meet the intent of the E-rate Plan Addendum.

Telecom Services, Internet Access & Internal Connections	**Goals & Strategies**	**Professional Development**	**Budget**	**Monitoring & Evaluation**
All services listed on a Form 470 (to include services or items identified in conjunction with the state master contract) must be included in technology plan. **There are no new services requested in program year 8 (SY06-07), and no new Form 470 will be issued. The district will submit funding requests for services solicited in program year 7 (SY 05-06) per Form 470 #1157000460331 Telecommunications, Internal Connections and Internet in 9 groups:** 1. Wired network equipment & maintenance 2. Wireless Network equipment & maintenance 3. Communication Cabling 4. Voice Equipment & Maintenance Services 5. Voice Services 6. WAN Services 7. Internet Service 8. Cellular Services 9. Pager Services	*Clear goals and a realistic strategy for using the requested telecommunications and information technology to improve education or library services.* **An assessment of the telecommunications services, hardware, software, and other services** *that will be needed to improve education or library services.* **District technology plan Section 1,** "Goals and Objectives". Goal 1: All students and educators will have equitable and effective access to technology during and beyond the school day.	*A professional development strategy to ensure that staffs know how to use these new technologies to improve education or library services.* **District technology plan Section 8.**	*A sufficient budget to acquire and support the non-discounted elements of the plan: the hardware, software, professional development, and other services that will be needed to implement the strategy. THE BUDGET portion must CLEARLY state that your entity has estimated the amount of the NON-DISCOUNTED portion of E-rate and have the budget to meet that expense. This section of the plan addendum concerns ancillary requirements necessary to actually make the requested E-rate services work (e.g. computers, software, and professional development).* **District technology plan Section 4.** The district has a fiscal practice of budgeting 100% for projected technology projects. Both discounted and non-discounted portions of E-rate eligible projects are budgeted at 100% in either the district's utility budget or capital budget.	*An evaluation process that enables the school or library to monitor progress toward the identified goals and make mid-course (i.e. mid-year), corrections in response to new developments and opportunities as they arise. If the process described in your current technology plan is very general, that description may not be sufficient to meet the expectations of the E-rate program.* **The district technology plan is preambled by a "Frameworks" section,** which describes the district's adoption of the ***Sterling Model of Continuous Improvement.*** "Frameworks" also contains the district's Strategic Plan. The district technology plan is aligned with the district's Strategic Plan. Objectives are quantified, and performance is monitored and reported monthly through the district's strategic planning calendar. The attached graphic illustrates the interaction and continuous improvement cycle. **District technology plan Section 5.1** describes the "Technology Standards Process"

				and **section 5.5** "Procedure for Pilots, Demonstrations and Technology Reviews". Additionally, there are two vehicles outside of the technology department that routinely monitor and evaluate the district's technology program. The Research and Evaluation Department conducts an annual "School Climate Survey" of students, teachers and parents. The climate survey includes a section on school technology. The Internal Audit department routinely audits technology projects for their attainment of stated goals. Both reports issue findings and recommendations.

Section XI—Addendum—Enhancing Education Through Technology (EETT)

School districts participating in NCLB:EETT Grant Program are required to submit detailed project application material which includes program-specific planning information. Submission and approval of the EETT Part I Entitlement Application is sufficient to address this particular essential plan component. For reference purposes, a copy of the most current EETT Part I Entitlement Application may be obtained from the following Office of Educational Technology Website location:

http://www.doe.firn.edu/edtech/it/eett

FLORIDA DEPARTMENT OF EDUCATION
PROJECT APPLICATION

TAPS Number

Please return to:	A) Program Name:	DOE USE ONLY
Florida Department of Education Bureau of Grants Management Room 332 Turlington Building 325 West Gaines Street Tallahassee, Florida 32399-0400 Telephone: (850) 245-0497 Suncom: 205-0497	**2004-05 NCLB:EETT "Enhancing Education Through Technology"** **EETT PART I - ENTITLEMENT**	Date Received

B) Name and Address of Eligible Applicant:	Project Number (DOE Assigned)
School Board of Broward County, Florida 600 Southeast Third Avenue Fort Lauderdale, Florida 33301	

C) Total Funds Requested:
$ 1,863,241

Estimated Roll-Forward:
$ 477,656

DOE USE ONLY

Total Approved Project:
$

D) Applicant Contact Information

Contact Name: Jeanine Gendron, Director Customer Staff Development Services	Mailing Address: 7720 W. Oakland Park Blvd. Sunrise, FL 33351
Telephone Number: 754-321-0475	SunCom Number:
Fax Number: 754-321-0477	E-mail Address: Jeanine.Gendron@browardschools.com

CERTIFICATION

I, Franklin L. Till, Jr. do hereby certify that all facts, figures, and representations made in this application are true, correct, and consistent with the statement of general assurances and specific programmatic assurances for this project. Furthermore, all applicable statutes, regulations, and procedures; administrative and programmatic requirements; and procedures for fiscal control and maintenance of records will be implemented to ensure proper accountability for the expenditure of funds on this project. All records necessary to substantiate these requirements will be available for review by appropriate state and federal staff. I further certify that all expenditures will be obligated on or after the effective date and prior to the termination date of the project. Disbursements will be reported only as appropriate to this project, and will not be used for matching funds on this or any special project, where prohibited.

Further, I understand that it is the responsibility of the agency head to obtain from its governing body the authorization for the submission of this application.

E) _____
Signature of Agency Head

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

EETT PART I

	ENHANCING EDUCATION THROUGH TECHNOLOGY (EETT) PROGRAM ASSURANCES	YES, NO, NA
1	Project funds will be allocated to supplement program related initiatives and activities and will not supplant existing non-federal resources.	Yes
2	A minimum of 25 percent of project funds will be allocated to provide ongoing, sustained, intensive, high-quality professional development (which is based on a review of relevant research and targets the integration of advanced and emerging technologies into curricula and instruction). *If this assurance is not provided, then the applicant must provide a detailed narrative justification (see Attachment A: PD Waiver Request). The narrative must explain in detail how such training is already provided to all teachers in core academic subjects. Submission of a waiver request with regard to this key program expectation may delay approval of an EETT application and should be submitted only under very special circumstances.* **[A "PD Waiver Request" must be submitted with the application if NO is indicated.]**	Yes
3	Not more than 5% of awarded funds will be used to cover administrative/overhead costs (including indirect costs based on the current approved rate for the LEA). NOTE: The Department of Education Comptroller can assist the applicant with indirect cost rate approval and/or rate negotiation if necessary.	Yes
4	The LEA/school district has engaged in timely and meaningful consultation with appropriate private school officials during the design and development of this EETT proposal. The LEA made available to private schools relevant information related to goals, standards, materials, or assessments developed for (or referenced within) the application (if such information was requested). Requirements under Title IX General Provisions, Part E – Uniform Provisions "Subpart 1 – Private Schools" have been (and will continue to be) adhered to by the applicant. Appropriate and timely written notification concerning EETT program involvement opportunities was delivered to all private schools in the district (**NOTE:** A copy of the communication used by the applicant must be included with the application.)	Yes
5	A comprehensive review of the LEA's local long-range educational technology plan has been conducted to determine if all Department of Education Essential Plan Components have been addressed in a detailed manner. In addition, planning information provided in this application has been (or will be) incorporated into the local strategic educational technology plan not later than May 31, 2005.	Yes
6	**Select the Appropriate Assurance (or indicate NA in each box if none of the assurances are applicable)** Every "applicable school" has complied with the Children's Internet Protection Act (CIPA) requirements in Subpart 4 of Title II –Part D of the ESEA. (An "applicable school" is an elementary or secondary school that **does not** receive e-rate discounts and for which EETT funds will be used to purchase computers used to access the Internet, or to pay the direct costs associated with accessing the Internet.) --- Not all "applicable schools" have yet complied with the requirements in Subpart 4 of Title II –Part D of the ESEA. However, the LEA has received a one-year waiver from the U.S. Secretary of Education under Section 2441(b)(2)(C) of the ESEA for those applicable schools not yet in compliance. --- The CIPA requirements in the ESEA do not apply because no funds made available under the program are being used to purchase computers to access the Internet, or to pay for direct costs associated with accessing the Internet, for elementary and seconday schools that do not receive e-rate services under the Comm. Act of 1934, as amended.	--- Yes

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

PROJECT FOCUS IDENTIFICATION

Establish primary focus areas for EETT program implementation in the district using the REQUIRED and OPTIONAL STRAND application sections. Focus area selection must be consistent with goals outlined in the local technology plan. The seven "Milken Dimensions for Gauging Technology Progress in Schools" were used to establish EETT STRANDS *http://www.mff.org/edtech/.* [Section 2414 (b) 1 & 2]

REQUIRED EETT STRANDS AND ASSOCIATED FOCUS AREAS

[Focus area selection is not restricted in an EETT entitlement application, but selection of too many areas is not recommended. Interim and final evaluation reporting is required for each focus area selected. At least one focus area must be identified under the PROFESSIONAL COMPETENCY strand. Two required program focus areas have been identified under the ACCOUNTABILITY strand. All program participants must address those two particular areas.]

PROFESSIONAL COMPETENCY

- ☐ Establish Technology Proficiency/Literacy Standards for Teachers/Administrators
- ☒ Provide Intensive, Targeted, and Sustained Technology Integration Training and Professional Development Opportunities for Teachers
- ☐ Establish Technology Integration Specialists/Mentors at School Sites
- ☐ Develop a Comprehensive Technology Integration and Staff Development Component within the LEA's Long-range Strategic Educational Technology Plan
- ☒ Adopt Incentives to Drive Improvements in Lesson Planning and Associated Classroom Technology Integration
- ☒ Promote Effective Utilization of Comprehensive Curriculum Management and/or Technology-Enhanced Lesson Plan Development Systems (incorporating exemplary research-based practices)

ACCOUNTABILITY

- ☐ Acquire, Implement, and/or Develop a Standards-Driven Performance Measurement System to Monitor Technological Proficiency and/or Literacy Levels (Students/ Teachers/Administrators)*
- ➢ Use Successful Research-Based Models to Drive Project Design and Implementation
- ➢ Conduct Formal Evaluations of all Educational Technology Projects and/or Initiatives Supported with EETT Funds

*Districts considering **development** of a standards-driven "*technology literacy*" measurement system with program entitlement funding are encouraged to consider: (1) inclusion of a "*technology skills inventory*" and measurement indicators appropriate for students, teachers, and/or administrators; (2) consistency with Florida's "*Technology Literacy Profile*" http://www.doe.firn.edu/edtech/sr/star/standards.html; (3) online web-based access to system components; (4) appropriate consideration of Sunshine State Standards, Educator Accomplished Practice #12, ISTE/NETS + NCATE standards, and 21st Century Skills, http://www.21stcenturyskills.ORG/; and (5) inclusion of clear dissemination and system sharing strategies to facilitate district access to resources that are developed.

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

OPTIONAL STRANDS AND ASSOCIATED FOCUS AREAS

Establish additional focus areas to be associated with 2004-05 EETT program implementation within the school district (identify an area by "double clicking" the check box provided). If the scope of the project thrust is too broad, meeting accountability requirements of the program may not be practical. [*Focus areas established within the EETT Part I entitlement application will remain in effect during the official project period.* ***Approval of a formal project amendment is required to add or remove one or more focus areas established in conjunction with an EETT project.***]

LEARNING ENVIRONMENTS

04-05

- ☒ Introduce and Incorporate Research-Based Instructional Methods and/or Best Practice Strategies
- ☒ Revise Curricula to Incorporate Technology Standards and/or Technology Delivered Instructional Content (may also include technology-related course development and 21st Century Skills infusion)
- ☐ Apply Modern Technologies to Collect, Manage, and Analyze Data to Promote High Quality Teaching Practices and Drive School Improvement.
- ☐ Improve Management and Implementation of Existing Integrated Learning Systems (ILS)

LEARNERS

04-05

- ☒ Improve Integration of Technology-Delivered Educational Content
- ☐ Develop New Distance Learning Opportunities for "High-Need" Student Populations
- ☐ Increase Utilization of Existing Distance Learning Programs by Disadvantaged Students
- ☐ Improve Utilization of Assistive Adaptive Devices and/or Systems for Special Needs Students
- ☐ Improve Delivery of Specialized Educational Programming (ITV, Teleconferencing, etc.)
- ☐ Incorporate Successful Applications of Handheld, PDA, or Small Form Factor Devices

COMMUNITY CONNECTIONS

04-05

- ☒ Establish Public-Private Initiative(s) Designed to Increase Access to Technology for Students and Teachers, with Special Emphasis on Disadvantaged or "High-Need" Schools.
- ☐ Institute a Modern Technology-Supported Home/School Communication System Designed to Promote Meaningful Parental Involvement through Improved Communications about Curricula, Assignments, and Assessments.
- ☐ Establish Special Training, Awareness, or Resource Sharing Programs to Involve Community

SYSTEM CAPACITY

04-05

- ☒ Develop Strategic Resources and Enhance Educational Technology-Related Program Planning and Coordination to Address Critical Needs of the District
- ☐ Establish Site-Based Project Coordinator(s) or Technology Integration Specialist(s)

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

SYSTEM CAPACITY (continued from previous page)

04-05

- ☐ Conduct a Formal Needs Assessment (district and/or school level)
- ☐ Technology Resource Center/Computer Lab Development
- ☐ Improve Maintenance and/or Troubleshooting of Instructional Technologies and Software Systems Used by Teachers and Students

TECHNOLOGY CAPACITY

04-05

- ☐ Acquire Modern Instructional Technologies and/or Expand New Applications of Technology to Support School Reform Efforts and Promote Equitable Access to Technology
- ☐ Implement Essential Technology Infrastructure Improvements and/or Wireless Telecommunications Capability within Classrooms and Instructional Areas at Schools Identified as Low Performing or Schools Identified as having Critical Connectivity Needs
- ☐ Acquire Special Connectivity Linkages, Resources, or Services for Use by Teachers, Students, Academic Counselors, and School Library Media Personnel to Support Instructional Activities in Classrooms, Academic and College Counseling Centers, or School Library Media Centers
- ☐ Increase Access to Assistive Adaptive Devices and Systems
- ☐ Increase Access to Handheld or Special Small Form Factor Devices
- ☒ Increase Access to Quality Educational Content Through Online Subscriptions and/or Direct Product/Media Acquisition
- ☐ Increase Access to Software or Systems Targeting Specific Subject/Curricular Area(s): __Reading, __English/Writing/Literature, __Mathematics, __Science, __History/Social Studies, __Art/Music, Foreign Language, __Special Applied Science or Technology, __Interdisciplinary, __Other:

MINIMUM UNITED STATES DEPARTMENT OF EDUCATION SUBGRANT APPLICATION REQUIREMENTS DISCUSSION

EETT Part I response sections that follow have been constructed to correlate closely to minimum United States Department of Education (USED) subgrant planning and information requirements. Applicants must provide a response under each prescribed area. Information provided should reflect current planning information. This program-specific information will be considered to be a formal addendum to the local district strategic educational technology plan. District technology plans on file in the Office of Educational Technology must be current. If a district formally revises the local ed tech plan in a significant way, a new plan must be forwarded to OET in a timely manner. Detailed guidance concerning educational technology planning and plan submission is posted on the following OET website: http://www.doe.firn.edu/edtech/it/tp/index.html. The program-specific planning information provided in this application is considered to be a formal component of the local district technology plan. However, technology plans must effectively address each of the Department's essential plan content expectations.

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

Indicate what special steps the applicant will take to ensure that students and staff in high-poverty and high-need schools, or schools identified for school improvement, will have increased access to educational technology. [Section 2414 (b) 3]

- ☐ Priority will be Given to "High-Need" Schools when Distributing Newly Acquired Technology
- ☒ Technology Integration Opportunities will be Provided on a Continuing Basis to Staff in "High-Need" Schools or Schools Identified as Low Performing by the Florida Department of Education
- ☐ The School District will Promote Partnership Development and Special Collaborative Initiatives to Bring Modern Technology-based Learning Tools and Best Practice Strategies to "High-Need" Schools or to Schools Identified as Low Performing
- ☒ Special Targeted Technology Awareness Training for Parents of Students at "High-Need" Schools or Schools Identified as Low Performing will be Provided
- ☐ Special Programs will be Initiated to Provide Increased Access to Technology (before, during, or after hours) for Students Attending "High-Need" Schools
- ☐ Other:

Indicate how the LEA will provide or foster ongoing sustained professional development for teachers, principals, administrators and school library media personnel to further the effective use of technology in classrooms and library media centers. [Section 2414 (b) 4AB –response information 1st part]

- ☒ Adopt Rigorous Technology Competencies and Proficiency Standards for School Instructional Staff and Administrators
- ☒ Provide Ready Access to Research-Based Methods, Best Practices, and Technology-Enhanced Instructional Strategies (access links to clearinghouse resources, etc.)
- ☒ Establish Professional Partnerships with Higher Education Programs and other Research Institutions
- ☒ Provide Reimbursement for Continuing Education Coursework with a Focus on Technology Skill Building
- ☐ Provide Special Salary/Bonus Incentives to Teachers who Achieve Measurable Proficiency in the Use and Application of Technology in the Instructional Process
- ☒ Provide Online or Computer Based Training Opportunities
- ☐ Encourage Post-graduate Study in the Area of Educational Technology
- ☐ Support Focus Groups that Target Best Practice Development and Research Review
- ☐ Encourage Visits to "Target Tech" Schools by Teachers and School Administrators who have had Limited Opportunities to use Modern Instructional Technologies to Improve the Learning Environment of their Students
- ☐ Provide Flexible Access to Technology Resources in Library Media Centers and Training Labs
- ☐ Other:

Identify personnel and/or partners that the LEA anticipates will be involved in providing professional development services in conjunction with the EETT initiative. [Section 2414 (b) 4AB – response information 2nd part]

- ☒ Local District Staff
- ☒ Private Consultants and Specialists

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

Identify personnel and/or partners that the LEA anticipates will be involved in providing professional development services in conjunction with the EETT initiative. [response information 2nd part] (continued from previous page)

- ☐ Regional Consortia or other Intermediate Unit Staff
- ☒ Community Colleges/Universities
- ☒ Area Vocational Technical Schools
- ☐ Contracted Training Centers
- ☐ Professional Associations
- ☒ Department of Education Staff and/or ETI Consultants
- ☐ Other:

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

Identify the types and estimated costs of technologies, infrastructure improvements, or special educational services to be acquired/delivered with EETT entitlement funds. [Section 2414 (b) 5]

COST AREA (EETT Part I) [If additional descriptive information is needed for a particular category, type in narrative text following the colon. Do not change category names. If a different category is needed, use "Other:"]	**PROJECTED ACQUISITION DATE (If practical/ applicable)**	**PROJECTED ALLOCATION**
TECHNOLOGY RESOURCES COST SUMMARY		
Instructional Learning Systems Software and Content Delivery System(s):		
Digital Content Subscription(s):		$236,777.00
Video Conferencing Equipment & Software:		
Projectors, Smartboards, and Other Presentation Support Equipment:		
Educational ITV Programming and/or Licensing:		
Technology Infrastructure Improvements:		
Service and Maintenance Contracts/Agreement(s):		
Assistive Adaptive Devices and Systems:		
Computers (desktop and/or portable):		
Printers, Storage Devices, and Digital Cameras:		
Handheld/PDA/Small Form Factor Devices:		$40,000.00
Other: Hardware		$30,060.00
TECH RESOURCE SUBTOTAL		$306,837.00
PROFESSIONAL DEVELOPMENT COST SUMMARY [Document all professional development related expenditures below. Total must equal at least 25 percent of the total funding request unless the applicant seeks a formal waiver of this EETT funds use directive.]		
Technological Proficiency and Literacy Measurement System:		
Technology Integration or Training Specialists [local district staff]:		$643,532.13
Special Consultants or Facilitators:		$ 49,668.91
Online Training Services/Fees:		
Stipends, Special Incentives, Release Time for Teachers, Substitutes:		$351,801.00
Technology-Enhanced Lesson Plan Development Assistance:		
Workshop/Seminar Registration(s) [research, measurement, methods]:		
Travel to DOE Sponsored Project Coordinators Meeting(s):		
Materials and Supplies [PD]:		
Other: (5) Online course designers (local district staff)		$414,239.27
PD SUBTOTAL		$1,459,241.31
ADMINISTRATIVE/OVERHEAD COST SUMMARY [Total must not exceed 5 percent of requested funds.]		
Project Coordination and Reports Prep [not training or integration]:		
Project Evaluation:		$ 20,000.00
Secretarial and/or Records Management Support:		
Indirect Cost Estimate [must be calculated using approved rate for LEA]:		$ 74,396.00
Materials and Supplies [ADMIN]:		
Other:		
ADMIN SUBTOTAL		$94,396.00
PROJECT TOTAL		$1,863,241.24

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

Provide a description of how the applicant will coordinate activities carried out with funds provided under this program with technology-related activities initiated or supported with funds available from other federal, State of Florida, and local sources. Describe how activities undertaken with EETT entitlement funds will support State of Florida reading improvement initiatives (*Reading First* or other as appropriate). Proposals must clearly associate specific training activities, technology-enhanced instructional practices, educational technologies, technology infrastructure improvements, or technical support designed to support and/or enhance reading instruction. Clearly identify specific technology integration training/mentoring activities, technology resource acquisitions, technology infrastructure improvement initiatives, virtual learning programs, system development and/or modification efforts, etc. that will directly or indirectly support reading instruction. [Section 2414 (b) 6 + Florida reading improvement program alignment requirements]

(Please limit your response to two pages or less. Expand text area as needed.)

The EETT entitlement funds for The Broward County School District will be used to support standards-based technology integration professional development for teachers, media specialists, reading coaches, administrators and curriculum support staff. The professional development will center on the integration of technology into all curriculum areas with an emphasis on reading, writing and mathematics. The districts Instructional Technology Plan and IT Blueprint delineates a comprehensive long-range technology integration plan and provides a framework for implementation while the EETT will assist with the funding requirements. The plan describes several projects leading to the integration of technology including building capacity among leadership to support integration initiatives, providing technology professional development through a variety of delivery methods, providing direct mentoring, coaching and modeling to teachers, incorporating all curriculum and instructional content into a web-based teacher portal, developing university and business partnerships, piloting an evaluative study of the creation of digital learning environments, and providing online curriculum and assessment resources directly to teachers and students. Title II, Part I funds will support and accelerate current initiatives to implement this plan with major emphasis on teacher professional development, mentoring and coaching, providing technology enhanced lesson plans, developing curricular content for both the teacher and student portals and providing student curriculum aligned to National Education Technology Standards (NETS) and improving information literacy skills of students. These initiatives include:

- Broward Virtual University. Title II Part I funds will be used to provide five full-time online course designers/developers and to provide stipends to teachers to serve as online course instructors. Currently, over 60 online courses are offered in reading, mathematics, writing, science, art, technology integration, exceptional student education and social studies. Title II Part I funds will enable Broward County to create additional online courses during term of the grant, offer more sections of its current offerings, and keep up with the rapid demand in this area. Online courses developed are also available to private and charter school teachers, thus providing direct benefits to this community,
- Broward County Curriculum and Instruction Teacher Portal. Title II funds will enable Broward County to hire Instructional Technology Specialists to develop content for its new initiative to build a teacher portal. Implementation includes identifying, collecting and reviewing lesson plans, project-based learning plans, activities and resources that provide the content for the teacher portal. An added dimension to the content will be the inclusion of video clips of best practices in action. In addition, Teachers are provided incentives, funded by local resources, if they submit lesson plans that are chosen for inclusion in the teacher portal. Contributing teachers are recognized at a district-wide technology professional development event that is funded through Public School Technology Funds. Emphasis will be placed on providing lesson plans for all grade levels that assist with using technology to teach reading and that incorporate research-based reading strategies.
- Many of the lesson plans, activities and resources will come from teachers attending the Digital Education Teacher Academy (DETA). The DETA is a locally funded joint partnership between Florida Atlantic University and the School Board of Broward County to provide graduate credit courses

focused on integrating technology into curriculum content and aligned with National Education Technology Standards for Teachers and Students. Title II funds will enable Broward County to hire Instructional Technology Specialists to provide direct classroom support in the form of mentoring, coaching and modeling to teachers as a follow-up component after they complete the DETA. Also, a DETA Learning Community will provide additional networking opportunities and communication will occur through both online and face-to-face venues. This will ensure that the staff development and resources received through the DETA will be fully utilized and incorporated into daily classroom practice and provide an evaluative avenue to determine the effectiveness of the DETA. The use of technology in reading instruction is a focus of the DETA program.

- Online curriculum aligned to NETS standards for students. Title II Part I funds will also be used to purchase digital curriculum content to assist students with attaining the NETS standards. This will assist the district with meeting No Child Left Behind technology requirements that state, "By 2006, all eighth grade students will be technologically literate." This curriculum will first be rolled out to middle schools.

All web-based products will be shared for replication by interested Florida school districts. The EETT Formula grant will support the competitive proposals by providing baseline training in technology integration and access to Best Practices website for Broward Virtual Education teachers. Title II funds will be used to conduct outside, formal evaluations to determine the extent to which activities are effective in integrating technology, improving teaching or increasing student achievement.

Identify specific technology integration and professional development strategies to be used to improve delivery of instructional content, promote the development and use of technology-enhanced lesson plans, and ultimately improve curricula and instruction. [Section 2414 (b) 7]

- ☒ Provide Technology Integration Mentoring Opportunities and Increase Access to Best Practice Resources
- ☒ Adopt Technology Standards and Promote their Integration into Curricula
- ☒ Revise Curricula and Lesson Plans to Incorporate the use of Modern Instructional Technologies and Technology Delivered Instructional Content
- ☒ Adopt Incentives to Encourage the Development of Technology-Enhanced Lesson Plans
- ☒ Increase Technology-related Staff Development Opportunities for Teachers (conference and seminar attendance, online training programs, etc.)
- ☐ Provide real Incentives to Teachers who Demonstrate a Commitment to Mastering the use of Technology to Enhance the Classroom Learning Environment
- ☐ Conduct Regular Demonstrations of Modern Instructional Technologies and Instructional Content Delivery Systems, and Provide Improved Access to Technology Integration Tools.
- ☐ Other:

OET intends to provide intensive technical guidance and assistance to program participants as concerns* FLDOE STaR Chart *planning tool integration, "*Technology Literacy*" measurement, benchmark and target setting, and related planning and monitoring tasks/strategies. Assistance and support will be provided through small group workshops, informal presentations, FETC conference sessions, special sponsored events, and individualized guidance. The* EETT Planning Snapshot *chart on the next page requests planning information relevant to achievement of critical program expectations.

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

(COMPLETE ALL SECTIONS OF THIS TABLE)

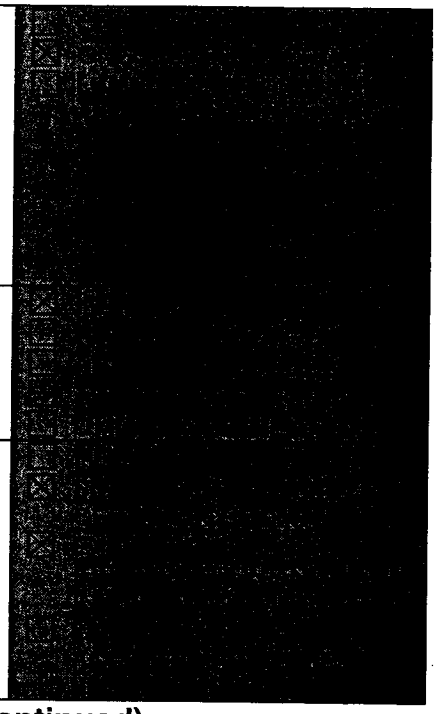
THIS PLANNING SNAPSHOT IS DESIGNED TO SUPPORT ACHIEVEMENT OF THE FOLLOWING TWO PRIMARY EETT PROGRAM GOALS:

- **FULL TECHNOLOGY INTEGRATION IN ALL SCHOOLS BY DECEMBER 31, 2006**
- **STUDENTS WHO ARE "*TECHNOLOGICALLY LITERATE*" BY THE END OF THE 8TH GRADE**

A FORMAL FLDOE STaR CHART AND ASSOCIATED SCHOOL PROFILES HAVE BEEN DEVELOPED TO ASSIST DISTRICTS WITH SCHOOL-BASED TECHNOLOGY INTEGRATION MONITORING. **EFFORTS ARE UNDERWAY TO ESTABLISH MEANINGFUL AND APPROPRIATE "*TECHNOLOGY LITERACY INDICATORS*" TO FACILITATE DEVELOPMENT OF EFFECTIVE MEASUREMENT SYSTEMS.**

CORE EETT PROGRAM PLANNING AREAS	CURRENT STATUS (Briefly describe specific implementation plans and/or activities. If timeline for implementation is checked in the monitoring box, document at least one specific challenge/barrier to implementation.)
FLDOE STaR Chart Integration Into Local Educational Technology Planning Process	9/04 – STaR Chart process has been integrated into SIP process. The results of the StaR survey are being used to plan district and school-based programs in the area of professional development, technology integration and technology procurement.
Standards-Driven Technology Proficiency and/or Literacy Measurement	9/04 – Conducting an evaluative study of web-based application with curriculum and assessment aligned to NETS standards for students. 6/05 – Results of evaluation will determine implementation strategy. 9/04 – Classroom walkthrough observation instrument being developed to assist Administrators in recognizing effective practices of teachers integrating technology into the curriculum. 1/05 – Begin professional development of administrators using new tool.
Intensive Sustained Technology Integration Mentoring/ Modeling	9/04 – Available through the Digital Education Teacher Academy (DETA) program. Expansion of DETA has included increasing opportunities for teachers to attend and providing a follow-up program through the DETA Learning Community model. 9/04 – Online course offerings in the area of technology integration will be expanded during the 04-05 school year which include an online mentoring model.
Educational Technology Standards Development/ Adoption (to augment Sunshine State Standards)	9/03 – NETS standards for students, teachers and administrators have been adopted by the district and this component is in place.

Curriculum Revision/Alignment to Reflect ISTE/NETS Technology Standards and 21st Century Skills	9/04 – A new project, CD/IM, is revising and aligning curriculum to reflect NETS technology standards and 21st century skills. The resulting web-based application will be a teacher portal. Phase One will be piloting in 1/05. Full implementation will begin in 9/05. This will always be an on-going process as new information will be added on a continual basis.
Technology –Enhanced Lesson Plan Development Incentives	9/02 – Incentive program in place. This program continues to be implemented and provides a rich source of technology enhanced lesson plans and classroom activities.
Technology –Enhanced Lesson Plans Include Exemplary Technology Integration Practices	9/04 – A web-based resources provides exemplary technology integration practices to all district teachers. Significant infusion is occurring at select schools.



II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

Indicate how the LEA will encourage the development and utilization of innovative strategies for the delivery of specialized or rigorous academic courses and curricula through the use of new and emerging technologies. [Section 2414 (b) 8]

- ☒ Strengthen Local Technology Planning and Strategy Development Efforts
- ☒ Adopt Special Incentives and Supporting Policies to Encourage Staff to Advance Their Technical Skills and Capabilities
- ☐ Encourage Partnerships Between Schools with Limited Technology Experience and "Target Tech" Schools
- ☐ Require Incorporation of Successful Research-based Technology Infusion and Content Delivery Models
- ☐ Improve Utilization of Existing Distance Learning Programs
- ☐ Develop New Distance Learning Program Options

Indicate what strategies the LEA will use to promote parent involvement and increase communication about the incorporation of instructional technologies into the learning environment. [Section 2414 (b) 9]

- ☒ Increase Parent Access to Technology (loan programs, after hours access, etc.)
- ☒ Technology Demonstrations at PTO/PTA Meetings
- ☒ Website Development or Enhancement to Provide Information of Interest to Parents
- ☒ Parent Training/Awareness Workshops
- ☒ Newsletters
- ☐ Regular Electronic Communication
- ☐ Technology Open House

Indicate how EETT initiatives will be developed in collaboration with adult literacy programs the LEA offers (or utilizes) to maximize the use of technology resources. [Section 2414 (b) 10]

- ☐ Computers or Other Technologies will be Provided to Support Existing Adult Literacy Programs (after hours or during the regular school day)
- ☐ Staff Development opportunities will be Coordinated with Adult Literacy Programs when Practical
- ☐ Software or Online Learning Services will be Shared with Adult Students when Practical
- ☒ Training Labs or Other Special Use Facilities will be Shared with Adult Students When Practical
- ☐ Significant Collaboration with Adult Literacy Programs is Not Applicable. Explain:

II. FEDERAL REQUIREMENTS AND PROGRAM GUIDANCE (continued)

The EETT initiative requires that participants measure the impact that program activities have on student achievement. Participants must develop specific mechanisms or accountability measures that they will use to evaluate the extent to which activities funded under the EETT initiative are effective in: 1) integrating technology into curricula and instruction; 2) improving the ability of teachers to teach; and 3) enabling students to master the Sunshine State Standards. Identify specific evaluation strategies or accountability measures that will be used to determine the effectiveness and impact that EETT funding has on student achievement and technological literacy. [Section 2414 (b) 11]

- ☐ Adopt Technology Standards and Incorporate a Comprehensive Proficiency Measurement System
- ☐ Conduct Targeted Analysis of Student Assessment Data
- ☒ Examination of Lesson Plans and Curriculum for Evidence of Technology Integration
- ☒ Require Comprehensive Program Evaluation by Consultant(s)/Specialist(s)
- ☐ Require Completion of Technology Proficiency Assessment Modules (Pre & Post-Tests)
- ☒ Conduct Regular Staff/Student Surveys
- ☐ Other:

Indicate the supporting resources that will be acquired to ensure successful and effective use of existing or new technology projected for acquisition. [Section 2414 (b) 12]

- ☐ Networking Services/OS Software Upgrades
- ☐ Server Upgrades or Continuing Service Agreement
- ☐ Broadband or Related High-Speed Connection Service
- ☐ Instructional Learning Systems Software Upgrades or Continuing Service Agreement
- ☐ Print Resources
- ☐ Computer Memory, Screen, or Storage Upgrades
- ☐ Special Adapters/Cables/Cards, etc.
- ☐ Other Essential Technology Supplies

NON-PUBLIC SCHOOL PARTICIPATION

Identify the nature of arrangements between the applicant and any non-public schools participating in the EETT initiative. Prospective program participants must notify non-public schools in their district about EETT program participation opportunities. Such notification should be done early in the initial application development cycle to be effective. Current EETT project coordinators are also encouraged to communicate on a regular basis with non-public schools that may have an interest in new program opportunities when they arise. Inclusion of interested parties in the preliminary project planning and vision stages is critical to achieving program intent. District staff are advised to carefully review NCLB regulations in this area (http://www.ed.gov/policy/elsec/leg/esea02/pg111.html).

In addition to the response material requested below, program participants must include a copy of a formal notification letter that has been sent to all non-public schools (please attach that documentation at the end of the EETT Part I entitlement application materials).

NON-PUBLIC SCHOOL PARTICIPATION (continued)

☒ Technology Resource Sharing (computer labs, training facilities, online services, etc.)
☐ Actual Technology Placement at School Site(s) [must include utilization monitoring by LEA]
☐ Technology Planning Coordination and/or Development Assistance
☐ Not applicable [no current participation]

Briefly describe any collaborative technology integration or staff development efforts that will be undertaken which might be considered as unique or especially innovative. Individual non-public school participation may be documented below, but that information is considered optional.

Staff development opportunities are open to all private, public and charter schools. All teachers who participate in the training will have access to online courses, and pre-and post assessment instruments. Private, Charter and Home schoolteachers will also be eligible for instructional technology endorsement however, stipends paid to participants will be limited to teachers employed by the Broward County School System. There will be no cost associated with the participation of teachers from outside the public school system for online courses and standard technology related staff development that is offered at no expense to BCPS teachers. However, any stipends and tuition will be limited to teachers employed by BCPS. Private and Charter School teachers can have access through a web site to the technology related lesson plans produced through Title IID funds. Private Charter and home school teachers will also be able to access the electronic instructional technology needs assessment tool, in order to better align their staff development to their particular needs. Each year, a survey of non-public schools will be conducted to determine staff development courses needs in both the online and hands-on environments. Courses available will be sent to non-public schools on a regular basis.

A) THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA
Name of Eligible Recipient:

TAPS Number

B) _____

Project Number: **(DOE USE ONLY)**

FLORIDA DEPARTMENT OF EDUCATION
BUDGET NARRATIVE FORM

(1) FUNCTION	(2) OBJECT	(3) ACCOUNT TITLE AND NARRATIVE	(4) FTE	(5) AMOUNT
5100	530	Subscriptions		$236,777.00
6300	100	Salaries (Online Course Designer, Tech. Specialist, Content Developers)	14.00	875,329.00
6300	200	Fringe Benefits		232,111.31
6300	640	Hardware		30,060.00
6400	100	Salaries (Stipends)		309,873.40
6400	200	Fringe Benefits		41,928.43
6400	330	Travel		1,000.00
6400	510	Materials & Supplies		43,000.00
7200	790	Indirect Cost		73,162.10
7710	310	Evaluation		20,000.00
		G) TOTAL		**$1,863,241.24**