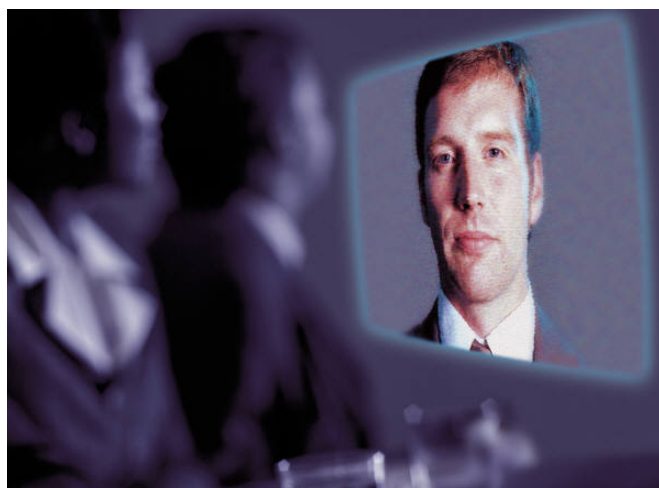# *Closing the Gap with Videoconferencing*

Conferencing Services
Education Technology Services
754-321-0484

Closing the Gap with Videoconferencing

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Definition of Videoconferencing

Videoconferencing is an interactive tool that uses computer networks as a conduit for the transmission of audio and video data, which allows people in different locations to meet face-to-face and perform most of the same meeting activities as if all participants were in the same room--regardless of their geographical location.

Definition of Distance Learning

Distance education is planned learning that normally occurs in a different location from teaching and requires special techniques for course design and instruction; use of special equipment and technologies, and special organizational arrangements.

Education has evolved from the traditional classroom environment to encompassing a wide range of learning techniques. By successfully integrating new forms of teaching and equipment, it is possible to reach multitudes of students. However, distance education can be equated with change and change, for many, is very difficult. It means major changes for schools and training for faculty. Surveys and pilot programs have shown that distance education is a "true" education. Results prove that scores do not differ from those students learning in a traditional setting to those who are taught via distance learning. Very often, using distance-learning equipment excites students and motivates them to participate.

History of Distance Learning

Distance Education has evolved through a number of different stages, starting with "correspondence" school which utilized printed materials. Students were given guides and homework that was sent in via regular snail-mail.

Then came "open universities". These universities relied mainly on correspondence instruction. Classes were recorded and the media was televised. Programs were aired over radio and television.

Distance education then evolved into delivering materials by broadcast television and videotape. Often, it was paired with the telephone, allowing call-in capability and the interaction with faculty.

SBBC Goals

Videoconferencing systems help to save time and money, and render travel unnecessary. The standard rate of transmission over videoconferencing has been set at 384 kbps or 30 frames per second –almost real time quality!   Also, information can be shared simultaneously with many sites since peripherals such as laptops, VCRs and document cameras can be hooked-up to the system. Furthermore since the videoconferencing equipment may be used for distance-learning, school participation in "Just-In-Time" specials, SBBC meetings, and staff training and development opportunities, the use of videoconferencing equipment targets two of the District's Strategic Plan goals:

> Goal #II: All schools will have equitable resources
> Goal #III: All operations of the school system will demonstrate best business practices while supporting student achievement.

Video Etiquette

In the typical classroom environment, there is usually one facilitator at the front of the classroom. In a videoconference classroom, particularly in a multi-point call, you may be speaking to three or more sites at one time.

REMEMBER:

- Do not stand with your back to the camera.
- Introduce yourself to everyone at all sites.
- It is a good idea to call-out a site name when addressing a remote site.
- The use of tent cards is recommended with letters in a large, bold font.
- Keep both the remote site informed when you intend to show a video or other presentation. If there is a delay, at least you will have notified them of what you planned to do.
- Begin and end on time.
- **Participants:** Arrive on time
- Don't Shout. The microphones are extremely sensitive.
- Be sure to pause to allow others sites a chance to join in the conversation.
- When your class gets under way, or a presenter is speaking, all units except the host site should be muted.
  - The videoconferencing units are voice activated and the microphones are very sensitive. If someone is whispering or sneezing, the remote will automatically direct the camera to that site.

- o Side bar conversations, with muted microphones, can make others feel uncomfortable. Try to hold unnecessary personal conversations until after the class or conference.
- Please remain attentive to what's going on while on the conference call.
- **Remember to interact with ALL sites**
- Did You Know? The Compression Process in videoconferencing will sometimes project the other sites with a jerky motion. This distortion is called **pixilation**. Movement should be kept to a minimum to reduce this effect.

Teaching with Videoconferencing

Before the Class

- Plan your conference or class
  - o Predetermine what your content will be
  - o Make a checklist of everything you need for the activity (materials, technology tools, guest speakers)
  - o Create a structure for your presentation
  - o Draw up a list of possible participating sites and site facilitators
  - o Set clear objectives and develop an agenda.
  - o List specific results to be achieved during the class or conference.
  - o Include interaction with all your participating sites
  - o Determine the time and length of the conference
  - o Choose the "Host" site

- Establish Timelines Needed
  - o To distribute the hard copy materials at all sites that you will distribute at the host site
  - o To introduce participants
  - o For all sites to participate
  - o For breaks and break-out sessions
  - o For Q&A
  - o To get surveys and homework back to you at the end of a class or conference.

- Design your Materials
  - o Use proper size fonts (big, bold, and easy to read from afar)
  - o Use graphics
  - o Use f ready-made slides
  - o Project documents using a document camera
  - o Use photographs
  - o Use diagrams and tables

- o Use drawings
- o Use outlines
- o Use related articles
- o Use books
- o Use textbooks
- o Use demo objects
- o Use Web sites

- Make arrangements to schedule the bridge
- Make arrangements for tech support
- Make arrangements with site facilitators
- Make arrangements with guest speakers

Have a Contingency Plan

Remember you are using technology. It is not infallible. In case there are technical problems, you need a "Plan B." That is why it is particularly important to have the same materials at each of the participating sites and facilitators whom are familiar with the subject matter. Try and have support on site that is good at trouble-shooting problems.

On the Day of the Class

- Lay out all handouts and paperwork and prepare the room.
- Microphones should be placed facing towards the participants and away from audio speakers to ensure clarity.
- Don't place microphones near laptop or projector fans, etc.
- Check for:
    - o Lighting
    - o Distance from camera
    - o Room layout.
    - o Camera presets. Note: Focus the camera on the speaker from at least the waist up—but not so close that he/she will feel uncomfortable.
    - o Test your Videoconferencing system (cables, camera, sound)
    - o Test your peripherals

What's on camera? – Remote sites will only remain involved and interested if they see what is happening on their monitor.

- Direct the camera to show the facilitator or what is being presented.
- The "driver" of the unit must be prepared to have the camera presets ready to show various angles in the room.
- *Remember*: If you are using peripherals, you must physically change to that camera view.
- Colors and Design
  - o Pastel colors always work best on camera. Avoid wearing bright red or orange since these appear to "bleed" on the screen. Also, avoid large plaids, flowers, and other bold prints since these may appear exaggerated on screen.
  - o A white shirt will look better on camera with a sweater or jacket over it—this helps cut down the glare.
  - o The best **background** color is usually a royal blue.
- Remember to introduce everyone**!**
- **If necessary, remind sites that microphones shoulod be "muted" until it is their time to participate.**


Evaluate

- Review what works and doesn't work from both the teachers' point of view and that of the learner
- Survey participants for feedback

Your presentation techniques are as important as your materials. Remember to be yourself, **stay relaxed**. Accept the slower speed of the technology medium you are utilizing and do things that it can handle. If you are the host, remember to announce everything that is happening so everyone will feel included. Enunciate your speech; interact with all sites, explain the class or conference rules and remain in charge. You are the "director", just like on a movie set. Use camera movements, presets, and changes sparingly.

POINT-TO-POINT CALL

A point-to-point call is a call made between two sites: the local (the NEAR END) and the remote (the FAR END)
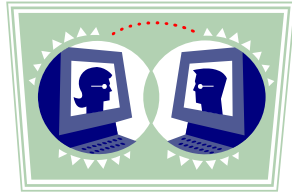

MULTIPOINT CALLS

In a multipoint call, the use of a videoconferencing bridge is necessary. The School Board of Broward County owns one. The bridge consists of equipment and software. When multiple sites are connected through the bridge, they can be monitored remotely for troubleshooting.

Multipoint videoconference calls are scheduled through Conferencing Services at ETS (754-321-0484). The videoconferencing bridge at ETS will connect participating sites 5 minutes "prior" to the requested time and 5 minutes "after" the scheduled end time. The following information must be provided when requesting a multi-site call: (Remember, participation for all Distance Learning events must be scheduled via BECON.)

- A "host" site for the event.
- The start and end times for the conference (specify if this call will be weekly, monthly, etc.)
- A contact name for the "host" site
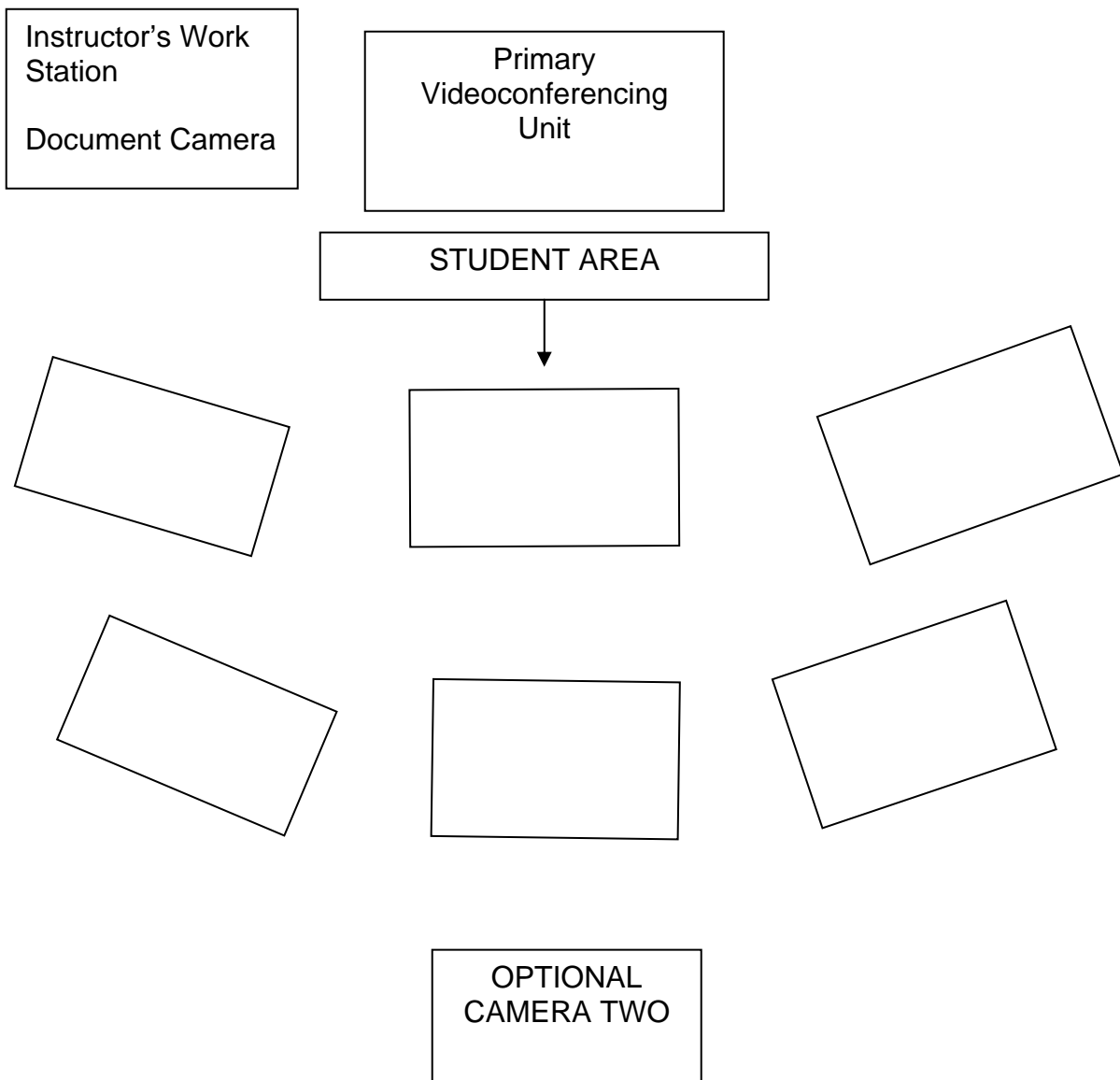- List of all sites participating

We suggest arranging multipoint calls with no more than six sites. Remember that you need enough time for each site to be called upon to participate.
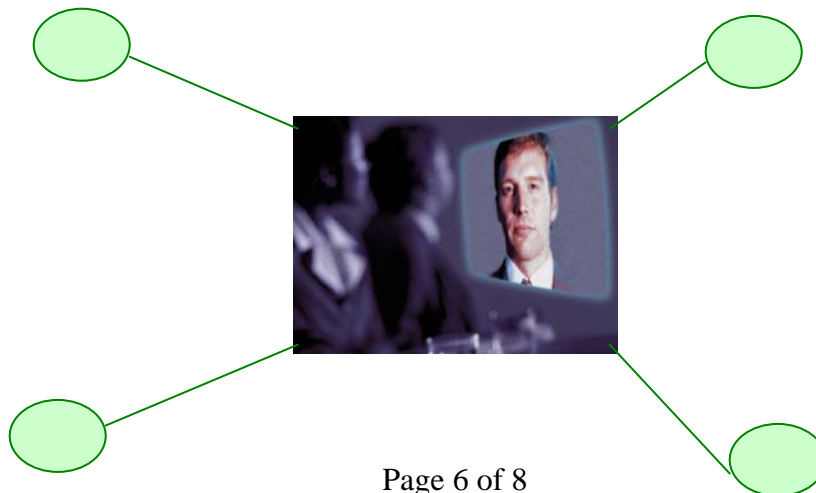
ROOM DESIGN

LAYOUT

Staggered or angled seating works best. You want to be able to see each conference participant so the camera can be focused on him/her. A diagram of a typical videoconference classroom follows.

Instructor's Work Station Document Camera	Primary Videoconferencing Unit

STUDENT AREA

OPTIONAL CAMERA TWO

LIGHTING

Sufficient lighting will ensure the best video quality at the remote site—avoid "dark" spots. If there are windows around the room, you may want to cover them. Light streaming in from the windows can cause you to appear as a darkened silhouette. Prevent light from reflecting on the TV screen,

PREPARING VISUALS

It is preferable to use Landscape vs. Portrait mode when using a document camera.

YES
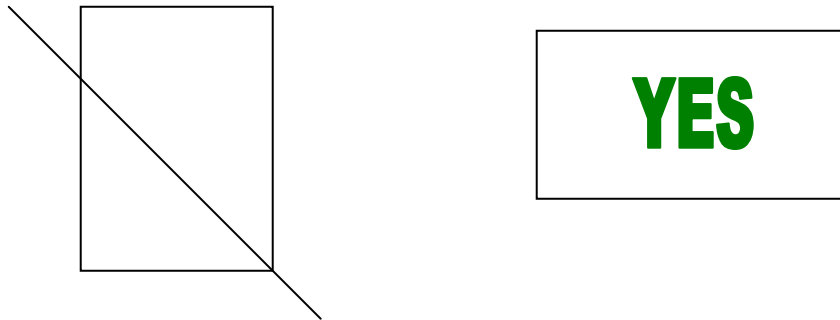
Your handouts should be well illustrated and edited. **Your font size should be no smaller than a 36-point size**. It is highly recommended that you do not exceed six lines of type on a page for use on a screen. Your document will appear crowded and will be difficult to read for participants in the back of a room. Remember to incorporate graphics!

Here are examples of font sizes so you can distinguish between them:

24   28   32   36   48