

*distance learning*



**CLASSROOM**

# **BASICS**

handbook



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# introduction

So, this is your first time in an "ICN" classroom? Well, don't worry, you'll soon get the hang of things. First, let's go through the basic layout, how the equipment operates, and some general principles to help get you started. Then you can practice for a few minutes until you feel comfortable with the controls.

If you are a teacher and will be using the system regularly, it would be advisable to attend a short workshop to learn more "tricks of the trade". There are some ideas contained in this booklet, but they don't cover everything you need to know to be an effective distance educator. Ask at your community college, Regional Telecommunications Council or AEA about interactive television workshops.

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Iowa Distance Learning Database  
[www.iptv.org/iowa\\_database/](http://www.iptv.org/iowa_database/)

# the classroom basics

All ICN distance learning classrooms have the same standard equipment, and are designed to hold 18-20 students. Information about each operational site can be found on the Iowa Database web site in the clickable map section.



An ICN classroom

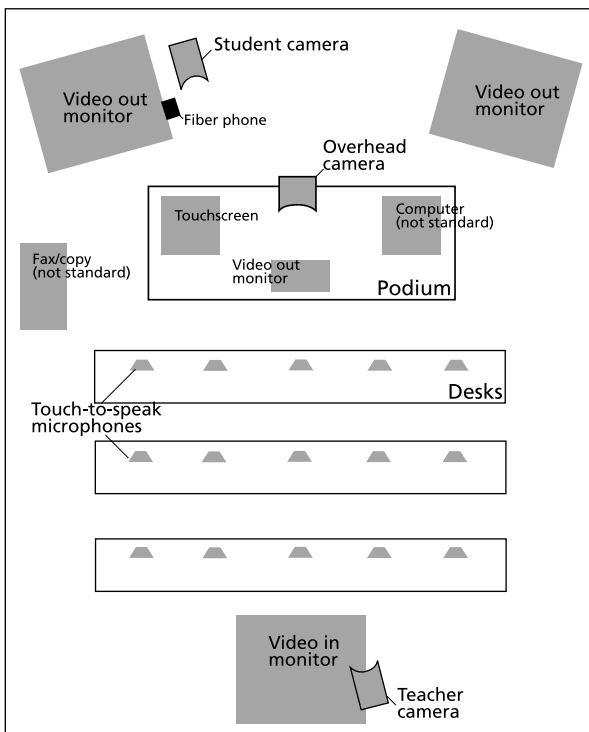
## Standard Equipment

- a touchscreen computer which controls the system and is used for switching between sites and system inputs
- three large TV monitors, two at the front and one at the rear of the room
- one small output monitor set on the front podium
- three cameras - called Teacher, Student and Overhead
- lavalier (open) microphone for presenter
- student microphones (touch-to-speak) for audience/students
- fiber phone - usually hung on a front monitor stand, provides a phone connection to all other distance learning classrooms and the technical assistance Operations Center
- podium - the front desk.

## Optional Equipment

In addition, classrooms may have other equipment, such as:

- videotape player
- videodisk player
- cassette tape player
- satellite or cable input
- slide projector
- fax/copier machine
- additional cameras
- computer - with Internet access



■ = Monitor    ▲ = Touch-to-speak microphone

□ = Camera

A typical classroom layout

# how the equipment works

In addition to reading these notes, you may wish to watch a short videotape explaining how to use the classroom equipment. Every ICN classroom should have a copy. Ask your local ICN classroom facilitator to see *How to Use the ICN Classroom* video.

## Turning it all on

All sites have an ICN room facilitator whose job is to ensure that the system is turned on when required. However, if it is necessary to turn the system on, or off, locate the on-off switch under the podium.

WAIT & DON'T TOUCH ANYTHING until all the monitors are up and the touchscreen has fully configured.

## Standard Equipment

### Touchscreen

The touchscreen is the nerve center of the whole operation. It controls the room's equipment switching. It is best not to touch or move the screen while the system is configuring as this might cause problems. Spend a few minutes to get a feel for how the touch buttons respond. You may also use the mouse to operate the functions.

The top rows of buttons on the screen relate to the various input devices, i.e. cameras and other optional equipment, such as VCR, computer, etc. The buttons on the third row control camera zoom and focus functions. The bottom section of the screen lists in alphabetical order the sites connected during a session, but are only seen on the origination site touchscreen. When more than twelve sites are connected the screen will become scrollable.



Touchscreen (at an origination site, showing eight remote classrooms are connected)

## how the equipment works ...cont.



### NOTES

1. Each classroom has a TOV (text over video) label which appears at the bottom of the monitor. However, the TOV may not always correspond exactly to the name on the touchscreen label. TOV will not appear on the origination classroom video.
2. Any standard ICN distance learning classroom can be scheduled as either an originate or a remote site. There are a few "remote only" sites on the network which are not able to originate a session.

### Monitors

At an origination site, the two front monitors and the podium monitor show the outgoing video as selected by the operator at the origination site. The rear monitor at the origination site also shows one of the connected remote sites. The operator may select which remote site he/she wishes to view. Whenever a student presses a desk microphone lever at a remote site the rear monitor at the origination site changes to show that remote site. (This is one way a presenter knows that someone wishes to speak or has a question.)



Classroom monitor

## how the equipment works ...cont.



Student camera (robotic model shown)

### Cameras

All cameras can be zoomed and focused, and are selected from the touchscreen. Many sites have installed robotic cameras that respond to infrared signals activated by the touch-to-speak microphones or a remote control device.

- rear Teacher camera shows the presenter.
- Student camera shows the class or audience.
- Overhead camera- a valuable teaching tool.



Ceiling mounted overhead camera and room speaker



Teacher camera mounted on a monitor

## how the equipment works ...cont.



Plugging in open (lavalier) microphone

### Microphones

Open microphone (or lavalier) - A presenter at an origination site would normally use the open lavalier microphone clipped to clothing. It is connected under the podium, using the top of two inputs on the left side under the podium. These microphones are very sensitive and will pick up sounds from several feet away. Alternatively, a touch-to-speak microphone can be used, connected at the lower of the two inputs. An open microphone can only be used at the origination site.

Student microphones - Students will use touch-to-speak microphones on their desks. (Review ICN Rules of Etiquette - Appendix 1.)

When a touch-to-speak microphone is activated, the incoming audio is not cut off but reduced a little in volume. In addition, the back monitor at the origination site will automatically switch to the site that last depressed a mic lever, indicating that someone wishes to contribute. The presenter will normally select the Remote button when they invite interaction from that site. If the lever is continuously depressed audio feedback and other distractions can result.



Student touch-to-speak microphone

Someone positioned at the podium at a remote site would need to use a student microphone, connected at the lower of the two inputs in the kneehole of the podium. To be seen they would select the Teacher camera on their touchscreen. A student microphone is another option for the main presenter at the origination site.



Using a student touch-to-speak microphone



## how the equipment works ...cont.



A teacher station

### Volume Control

The incoming audio volume is controlled by a rheostat knob in the knee-hole of the podium - usually on left side near the microphone input plugs. Position "5" is normal. If the volume is too loud feedback problems may result. It has no effect on the outgoing volume.



Auxillary inputs

Volume control  
rheostat

Microphone connection



Fiber phone

### Fiber Phone

All distance learning classrooms have a fiber phone with a three digit number by which any other classroom can be contacted, even when the video network is not 'live'. Each classroom has a directory that lists all operational sites with their numbers. The details are also listed in the Iowa Database web site. The fiber phone number is different from the classroom node number.

# optional equipment



Computer and scan converter

## Computer

Some sites have installed computers as auxiliary input devices, which are especially useful for presentations. They may also be connected to the Internet. A scan converter is required to allow computer images to be viewed on the room monitors.



Fax machine

## Fax/Copy Machine

Some classrooms have fax/copy machines that are connected to the fiber phone system. The three digit number is the same for both the fax machine and fiber phone. Faxes can only be sent to another ICN classroom.



VCRs

## Video Tape Recorder

**Playing** If you plan to use videotape material during your class or presentation, allow a little time before the session to get it queued. Start the machine and then select VCR on the touchscreen. (You will need to check copyright permission if you plan to use commercial material.)

**Recording** You can record a session, both the video and audio, only from an originate site. (This protects the presenter's intellectual property rights.) Some sites have two VCRs, one to play, and the other to record.

## Other Equipment

It is possible to connect various other input devices to the network, so local configurations may vary. When using a site for the first time, check with the room manager to see what is available or check the details on the clickable map section of the Iowa Distance Learning Database.



### Copyright Issues

As a general rule you should apply the same fair use guidelines when using copyright materials during an ICN session as you would for any other form of presentation, lecture etc. It is as well to check first before using any commercial materials - including video, audio, print, or digital. AEA media departments and community colleges may be able to assist in clarifying copyright guidelines.

### Scheduling an ICN Session

All authorized users are assigned an individual account number for use when scheduling the ICN. Each ICN classroom has a facilitator or local scheduling contact person who can assist newcomers with the scheduling process. If that person is not available go to the clickable map on the Iowa Distance Learning Database to find out who you can contact.

# teaching over an interactive television system

## Human Interaction

The dynamics of human interaction change when using technology

Traditional classroom interaction consists of:

- Teacher interacting with students
- Students interacting with teacher
- Students interacting with each other

Remote classroom interaction consists of:

- Teacher using technology to interact with students
- Students using technology to interact with teacher
- Students using technology to interact with each other at other sites

## Humanizing The Class Experience

- User orientation
- Activities for getting acquainted
- Learning participant names
- Planning student interactivity
- Developing a format for questions and comments
- Providing opportunities for questions and comments
- Providing opportunities for self-expression
- Remote site visits
- Sharing discussion of activities of common interest
- Group field trips
- Planned social activities for participants

# teaching over an interactive television system ...cont.

## Preparing The Users (Student)

- Organization of daily schedule
- Use of student microphones
- Identification when speaking
- Responsibility of remote site facilitators
- Attendance policy
- Language and discipline policy
- Procedure for technical difficulties
- Handling of student materials
- Testing procedures

## Preparing The Learning Experience

Essential components (no ideal model)

### Review

- Main points of previous lesson
- Answer student questions

### Preview

- Set the stage by stating the objectives or major questions
- Present new vocabulary

### Present

- Start with some attention grabbers
- Progress from simple to complex
- Logical sequence
- Select a maximum of five main points to be made during this presentation (15-20 minutes)

### Summarize

- Tell students in simple language what you think is worth remembering from the presentation

### Example

review- 3 minutes introduction to the network

preview - 2 minutes introduction by presenter

present - 40 minutes main presentation, allowing for plenty of interaction

summarize - 5+ minutes questions and answers

# teaching over an interactive television system ...cont.

## Common Teaching Techniques

- Demonstration
- Problem solving
- On-line and off-line discussion
- Exploration and brainstorming
- Drill and practice
- Interview
- Panel discussion
- Case study
- Written exercise
- Tutorial (peer tutoring)
- Instructional gaming
- Simulation
- Reading aloud (teacher or students)
- Planning cooperative learning
- Lecture

## Other teaching techniques?

- Remember, there is not one “best” teaching technique or “best” teaching strategy!

## Suggestions

- Select many of the same teaching/learning approaches you use in the self-contained classroom
- Consider variety - but keep it interactive
- Combine techniques
- Be creative
- Explore
- Experiment
- Limit the number of major concepts
- Determine the teaching/learning activities
- Time all activities
- Build in “loose” time
- Select or develop on screen visuals
- Develop handouts
- Video tape the entire learning experience and watch the entire tape!
- The key to successfully using this technology is interactivity.
- The class should be performance and involvement oriented.

# personal qualities

## Appearance

- Wear conservative clothing with clean lines
- Avoid reflective silk materials
- Solid colors are best
- Do not wear herringbone or small checks or spots
- Avoid extreme color contrasts, e.g. white and black
- Check collars are flat, flies zipped, blouses buttoned
- Avoid flashy, dangling earrings, pens in pockets, and other distractions

## Poise

- Be calm
- Avoid annoying mannerisms
- Use moderate natural body movements

## Personality

- Let your personality show
- Relax and be yourself
- Show warmth, friendliness and sincerity
- Model interest and positive attitudes toward the subject
- Be energetic

## Delivery

- Stand straight, good posture
- Facing the students, full front, or straight into teacher camera
- Center of image area is stronger than either side
- Left side is stronger than the right
- Use natural body language
- Look directly at the student who is talking
- Look directly into the camera frequently
- Speech - pitch, volume, tempo and pacing, vitality and enthusiasm, articulation

## Interactivity

- Use a variety of interactive techniques
- Switch cameras often, especially during discussions
- Plan visual content - word, picture, motion images
- Use well prepared visual materials
- Involve entire class in interaction
- Pay attention, show interest, and avoid distractions
- When a student is talking, don't interrupt
- Finish your sentences
- Use personal experiences that relate to the topic

## Humor

- Let humor flow naturally
- Humor can reduce stress