



# COOPERATIVE EXTENSION

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**Fact Sheet-00-28**

## Interactive Video for Distance Education

JoAnne Skelly, Carson City / Storey County Extension Educator

Interactive video offers expanded opportunities to extend Cooperative Extension programs to meet the growing needs of rural populations through education and volunteer training. Distance education, in order to be effective, must focus on the learners, the requirements of the program, and the constraints placed on the instructor. Interactive video is a two-way video system providing video and audio communications in both directions between learners and instructors. Each location has cameras, microphones and monitors. Interactive video is transmitted via Internet connections or data networks.

Interactive video works extremely well to provide volunteer training such as the Master Gardener program to rural areas, which normally would not receive instruction due to distance and lack of available instructors. One of the reasons it works for training is learners at a distant site come from the same community and share common backgrounds. Because volunteer programs are often taught by several instructors, it is the responsibility of a class facilitator to make the distance education project easy for the visiting instructor each session.

Success begins with careful planning. The logistical difficulties increase with every added video site. Most Extension personnel, volunteers and outside instructors are not technologically trained in the use of interactive video. Success in distance education is due more to preparation than innovation.

### Benefits of Interactive Video:

- Reach multiple geographical locations simultaneously
- Increase the impact area of an instructor
- Reduce travel to remote sites
- Allow "face to face" contact between instructor and students
- Save money

### Challenges of Interactive Video:

- Obtaining funds for equipment
- Training on use of the equipment and handling equipment
- Reserving and booking sites
- Operating equipment and teaching
- Actively engaging distant learners
- Encouraging dialogue among students
- Reaching outlying locations with printed material in advance of class
- Adapting/updating teaching styles.
- Using various audio/visual equipment and interactive video at the same time.
- Ensuring sound quality and avoiding distractions.

The key to making interactive video work for the instructor, the "home" students, and the "away" students is to focus on the instructional needs of the students. The primary need is for students to learn the subject matter.

There are differences between distance and face-to-face classrooms: often instructors can't see visual and unobtrusive cues – when students look tired or bored; when they are taking notes or pondering. Also, there may be no interaction outside of class. Communication may not be free-flowing due to technological barriers.

Unless an instructor is trained to operate the equipment and to interact with the cameras and audio-visual aids, a facilitator/technician should operate the cameras, making certain the technician practices with equipment first.

How can the instructor or facilitator ensure a valuable learning experience? Establish ground rules. Let learners know what to expect. Explain how interactive video works at the beginning of the class. Prepare the learners for an active interchange of information. Let the students know that this is not a passive TV entertainment experience. Try to keep the technology transparent to minimize the distractions.

Establish rapport with remote learners. Be enthusiastic about the distance learning opportunity. Encourage questions that are to the point and discussion utilizing a microphone. Share an email address or fax number for those who are shy in front of a camera and microphone. Ensure that outlying students know how the microphones/speakers work at their site. Explain how to turn them on and off as needed to reduce the distraction of extraneous noise or activity.

Encourage interaction between the present and the distant students as long as one person speaks at a time with a microphone. Find personal ways to include the "away" students. Provide timely feedback in a personalized, pleasant manner whether in class, by phone, fax, or email. Make content examples relevant to the intended audience.

Using Master Gardener training as an example, make the situations locally relevant using experiences from the respective towns. Send candy or special treats to the distant students. Learn students' names if possible and direct questions and comments, when appropriate, to individuals by name.

Be sensitive to hearing problems- ask often if students can hear. To minimize listener fatigue, focus on changing the method of presentation every 15-20 minutes. Don't be a talking head. Use humor. Utilize overhead transparencies, slides, small bits of video, and writing on boards. Work with the document camera (ELMO). When available, switch to and from computer output. Share handouts prior to class and work with the handouts, having all students look for pertinent information. Take regular breaks and remember to use mute buttons at all sites when you break. Adapt the delivery method to motivate and involve all students.

To simplify things, consider the following when planning and facilitating an interactive video presentation or series of classes:

Logistics:

- Arrive 20-30 minutes early for setup and equipment trials
- Have emergency technical support phone numbers handy
- Check for sound quality

#### Site participant package:

- Learner welcome letter
- Ground rules
  - How and when to ask questions
  - How to make comments and interact with the trainer
  - How to use the mute button
  - Limit side conversations
  - Avoid distracting noises (paper rustling, tapping) while microphones are on
  - Start on time
- Schedule of classes
- Contact phone and email for instructors and site facilitators
- Biography for instructors
- Breaks – when and how long
- Additional resources/booklist
- List of all learners at home and away with name, phone, and email, but only with permission of participants first

#### Instructor Appearance:

- Wear conservative non-distracting clothing in plain or muted patterns. Loud patterns may "swim" on the screen
- Navy, green, blue, and gray are good color choices.
- Avoid white because it glares
- Avoid jewelry and pocket items that jingle

#### Visuals:

- Use 36 to 42 point type for titles and 28 to 30 point for text
- Use upper and lower case and bold clear fonts
- Keep visuals simple and eye appealing -limit to six bullets down, six words across
- Keep videos to less than 10 minutes. If video is longer, show in segments with interaction and questions and answers between.
- Use document camera (ELMO) for three dimensional objects

#### Presentation Style:

- Storytelling, localized case studies, humor
- Personalize by using students' names or location name
- Use directed dialogue
- Insert listening cues such as "Remember this" or "This is important"
- Repeat and summarize

#### Presentation Techniques:

- Be prepared and organized
- Be warm and enthusiastic saying hello to each site and the facilitator at each site
- Alternate between looking at home students and directly at camera
- Speak in a normal conversational voice, but vary volume to illustrate a point or show emphasis; enunciate
- Pace speech. Slowly introduce a new topic, but more quickly review old material. Pause to draw attention to an important point. Regularly insert a 7-10 second break to allow questions or comments
- Use inflections when possible; vary pitch to avoid monotony
- Smile and use body language. Let normal charisma come through
- Point out areas of common interest
- Address questions to all participants

### Media Utilization Techniques:

- Limit concentrated listening to short segments
- Use variety to add interest
- Use print materials to support visuals – copies of overheads, slides with text, etc., sent ahead
- Limit note-taking so students can listen and think more

### What to avoid when videoconferencing a class:

- Pacing – the camera can't follow easily – this creates seasickness in viewers
- Speaking away from the microphone
- Putting an overhead/slide on the screen, setting the camera on it, and then talking for long periods of time without bringing the camera back to the instructor
- Allowing a long diatribe by "home" students – unless each student has a microphone, "away" students can't hear – a long time of not hearing gets frustrating.
- Using busy overheads or slides
- Using black on white overheads or slides
- Using visuals with too much text

### **"What do I do if...?"**

Things go wrong. Be prepared. If a presentation is all on computer, are backup slides available? Mail materials out far enough in advance to allow for foul ups in the mail. Make a hard copy of overheads for faxing in case of emergencies.

Test equipment ahead of time to allow for adjustments if trouble occurs. Have emergency phones numbers for each site. Know what backup systems are available and be able to talk the site coordinator through problems.

### **Conclusion:**

According to *McGraw-Hill Handbook of Distance Learning*, twenty-first century learning will be learner-centered with facilitation and team learning. Students will be collaborators and instructors will be guides. Content will be dynamic. Appreciation of diversity of learners and learners' performance will be important. Instructors will reach learners in many different ways other than conventional instructional delivery.

Distance learning efforts are in the fledgling stage. Advances will be made in cameras, microphones, other equipment, and classrooms. Teaching styles will change. There are growing numbers of willing learners in remote geographical areas that appreciate every class in which they can participate. Interactive video is one method of providing greater access to education.

### **References:**

- Chute, A.G., Thompson, M.M., and Hancock, B.W. 1999. *The McGraw-Hill handbook of distance learning*. McGraw-Hill, NY.
- Mantyla, K., and Gividen, J. R. 1997. *Distance learning – a step-by-step guide for trainers*. American Society for Training and Development, Alexandria, VA.
- Verduin Jr., J.R., and Clark, T.A. 1991. *Distance Education – the foundations of effective practice*. Jossey-Bass Publishers. San Francisco, CA.
- Willis, B. 1993. *Distance Education – A practical guide*. Educational Technology Publications, NJ.

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