Effective Use of Two-Way Interactive Video Conferencing

Overview

Increased availability of technology has expanded opportunities for presentations and meetings via video conferencing, which is an enhancement over earlier conferencing due to its visual and audio connections. In addition, using this technology tool allows for real-time visual interaction among participating sites rather than relying on phone or e-mail connections previously required for interaction with program delivery from a single point of production to one or more receiving sites. Two-way interactive video conferencing has multiple benefits:

- **Savings related to time, money, and increased productivity** by professionals who are able to connect for the meeting time only, rather than having to invest in travel expenses and time spent traveling to and from the meeting
- **Opportunities to expand the audience** by providing an easy option for people who had been unable or unwilling to invest travel time to participate
- **Great sharing across communities and locations**, providing opportunities for richer cultural diversity among members of the audience

This publication will define the most common types of two-way interactive video conferencing, identify the key players involved in the planning and delivery process, outline some of the requirements for successful program delivery using this technology, and provide a checklist that can be used while planning the video conferencing session. The primary focus is on the use of multipoint video conferencing even though a checklist is provided for both point-to-point and multipoint video conferences. The information provided here is by no means all inclusive. As you gain experience with conferencing, you will develop your own methods related to these items.

VIDEO CONFERENCING CONSISTS OF TWO PRIMARY TYPES

- **Point-to-point** video conferencing is video conferencing in its simplest form and is used when only two sites are involved in a meeting or program. These sessions have great flexibility and, while they may be scheduled in advance, can be initiated on the spur of the moment. Generally, the connections for this type of conference will be simply established between the two participating sites. Interaction is easily achieved through the simple back-and-forth, question/answer dialogue such as that used in a phone conversation. Yet, the added benefit of video provides opportunity for demonstration in addition to dialogue. See the “Checklist for a Point-to-Point Video Conference” included in this publication for more information.
- **Multipoint** video conferencing occurs when more than two sites are involved. This may be used for a meeting where each individual is in a unique location or may be used for a program being “broadcast” to numerous points within the state, country, or world. As the number of points involved in the program increases, the level of complexity for program planning and delivery also increases. For more information, see the “Checklist for a Multipoint Video Conference” included in this publication.

Program Planning

Much of the normal program-planning process used for normal face-to-face meetings/programs also applies to meetings/programs taking place over two-way interactive video. Identifying your audience, establishing appropriate objectives and content, and utilizing evaluation tools are all still very important when using two-way interactive technologies. Successful presenters in a face-to-face environment often strive for effective interaction with their audience.

Contact with the audience is equally important in the two-way interactive environment, but successfully achieving it may require additional attention. See the "Opening Interaction Exercise" for tips on establishing a connection with your audience.

Since video conferencing relies so heavily on technical systems over which individuals have little control, having a back-up plan for program delivery is always a good idea in case connections are impossible or inadequate. One possibility is using Internet-based delivery systems such as Breeze or another collaborative tool such as NetMeeting. Another option is to provide slides or other data to the remote site(s) in advance so that only an audio connection is required in the event of a technology failure.

Identifying the tasks to be performed and the most appropriate people to perform those tasks is one of the first steps in developing a successful program. In a simple operation one person may perform all of the tasks, while in a more complex program a development team may work to ensure the delivery of a quality program. The following are key tasks that need to be performed for a successful multipoint video conferencing session:

- Program coordination
- Site/event coordination
- Presentation
- Registration
- Site technology coordination

PROGRAM COORDINATION

The person initiating the program will most likely complete this task, which includes oversight of all activity related to the development, delivery, and evaluation of the program. Some of the program coordinator's primary responsibilities include the following:

- Establishing a mechanism for communication with the program team if multiple individuals in various locations are involved. Possibilities might include regularly scheduled video conferences or use of interactive Web sites such as SharePoint or your university's course-management system.
- Setting an agenda that includes dates/times for the presentation in coordination with speakers at the event.
- Marketing the program to the target audience.
- Developing a procedure for sharing the materials used with the audience during or after the presentation. This may be done via printed copies provided by site facilitators, workshop notebooks, e-mail, or Web sites. Work with presenters to ensure their materials are provided to the participants in the appropriate manner at the appropriate time.

- Identifying site facilitators. The role of the site facilitator is defined in greater detail below, but the program coordinator will want to work with facilitators to ensure the mechanism for connection exists and is acceptable as well as to establish program date(s), time(s), and agenda. Facilitators will also need to work together to determine registration limitations related to number of participants and deadlines.
- Establishing a program-evaluation process with the planning team.
- Posting emergency phone numbers for all sites to use during the "big event" should technical difficulties occur. Generally, cell phones or a separate on-site phone line connection work best. Avoid using an office number that will be unobserved during the session.

SITE/EVENT FACILITATION

The facilitator is typically someone very familiar with the local site who oversees the program from that specific site. Some of the facilitator's primary responsibilities are:

- Identifying the local site and making all necessary arrangements and reservations.
- Setting up the meeting location to best facilitate interaction based on audience size.
- Identifying the site technology coordinator and ensuring his/her availability.
- Providing on-site registration (check-in, nametags, etc.) for participants on the day of the event and supplying participants with materials or information so they can access materials and follow-up opportunities provided by the presenters.
- Opening the session with a self-introduction and reviewing the agenda for the event, as well as establishing whether some parts of the presentation are live while others are using interactive video conferencing.
- Explaining the mechanism of interaction (when to mute, when to speak, etc.) to the site and modeling the process during the introduction of the sites. See the "Interaction Guidelines" provided in this publication.
- Helping the participants interact, watching for indications that someone wants to speak, and helping them get the floor when there is an opening. Encourage interaction!
- Facilitating program evaluation for the site.
- Reporting any problems to the technical contact as soon as possible.

PRESENTATION

Of course, program presenters are extremely important to the program's success. Working effectively with presenters involves the following considerations:

- Awareness of the plans for involving multiple sites (for example, will presenters have a live audience in front of them or will all of the audience be remote? Do they have a preference?)
- Ability for presenters to build in components of their presentations that require interaction to maintain their connection with their remote audience
- Opportunity for presenters to frequently ask clarifying questions to monitor understanding and build interaction
- Extra time for responses when presenters request audience participation to accommodate those at remote locations

- Avoid possible interaction domination by one site (i.e., presenters must work to prevent this and may need to call on specific individual sites for interaction. Provide presenters with a list of site information with remote locations so they can do this effectively.)

REGISTRATION

This task is fairly simple:

- Collect names, addresses, phone, e-mail addresses, and locations as well as any applicable fees as participants register for the program.
- Give participants access to the appropriate Web site if one is used for the program, as well as other information pertinent to the program.
- Coordinate enrollment information on a timely basis at each site (this should be a component of the team communication system established early in the planning process).

SITE TECHNOLOGY COORDINATION

As people become more comfortable with the technology, the site facilitator may also become comfortable assuming the role of the site technology coordinator. In some situations this may be an assigned role for a person who has been trained to use the equipment.

Video Conference Meeting Management Tasks

- Make sure the equipment works ahead of time. Log on early on the date of the program so any last-minute problems can be addressed. (Log on 15 minutes in advance if there are fewer than 10 sites and 30 minutes in advance for more than 10 sites.)
- Welcome remote sites as they join the conference.
- Alert sites to mute their microphones when not speaking.
- Be careful not to “fidget” with the equipment, but also be sure everyone has equal camera time and those speaking are featured.
- Have onsite technical support available via phone.
- Know equipment to be used—number of projectors and screens and any other technical details.

Additional Considerations

- **Room lighting:** Generally, rooms can use more light. However, windows on a bright, sunny day can prevent a good image from being projected.
- **Proximity of audience to the camera:** Try to get your participants to sit as close to the camera as possible so they can easily be projected and “participate” in the video conference.
- **Microphone placement:** Be sure you have an adequate number of microphones. One microphone services a 15-degree radius. Microphones should be placed so they are an equal distance from all presenters. Speakers must face the microphone.
- **Distraction reduction:** Close doors to hallways where traffic may be an easy distraction. Avoid locations where there is a lot of extraneous noise (phones ringing, copiers running, etc.). Request that participants be careful about shuffling papers and tapping pens, pencils, or fingers when the microphone is on because it will pick up the slightest noise distractions.

- Eye contact: Be sure the presenter(s) know where the camera is so they can use it to establish eye contact with the audience. This will result in much more effective interaction.
- Delay: There will be a slight delay in transmission. Pause when expecting a response from remote sites.

Checklist for a Point-to-Point Video Conference (Two Sites)

PERSON IN CHARGE	DEADLINE	STEPS	COMPLETED
Prior to Video Conference			
		Decide on date and time that fits schedules.	❑
		Schedule room(s) where equipment will be used. • Decide what size room meets your requirements. How many participants are expected? Will they need work space? Will they need room to work in teams? • Do you need to show a PowerPoint presentation or share handouts digitally? • If so, you need a computer to run the PowerPoint and a room that has data-streaming capabilities.	❑
		Provide handouts to other site via e-mail, ANGEL course-management system, SharePoint, or other mechanism.	❑
		Provide IP address or alias of your Polycom to other site.	❑
		Become comfortable with the equipment.	❑
		Identify the technical support for your equipment.	❑
		Test connections and equipment to be used prior to meeting.	❑
Day of Video Conference			
		Turn on system at least 15 minutes prior to start time.	❑
		Welcome sites as they call into the meeting. Adjust volume and camera as needed.	❑
		Position camera so that appropriate people are in sight of the remote participants. Use the presets on remote.	❑
		Remote site dial in or you dial into the remote site. • Type in IP address or alias at the home screen or place a call using the Address Book. Press the call (green) button to place the call.	❑
		Introduce participants by site. • If you'd like interaction, have participants list expectations for this conference.	❑

Checklist for a Multipoint Video Conference (More Than Two Sites)[1]

PERSON IN CHARGE	DEADLINE	STEPS	COMPLETED
Prior to Video Conference			
		Decide on date and time that fits schedules.	❏
		Schedule room(s) where equipment will be used. • Decide what size room meets your requirements. Link to Penn State room list at http://tns.its.psu.edu/Services/vidconf/videodb.asp. • If you need to show a PowerPoint presentation or Web sites, you will need a computer attached to the system. • If you need to share handouts digitally, the presentation equipment must have data-streaming capabilities. • Identify the technical contact and determine method of contact for the event.	❏
		Decide if you want to use the Penn State scheduled bridge or an on-demand bridge. • A scheduled bridge provides technical support for the event and testing prior to the event. Request this two weeks prior to the event if any non–Penn State people or sites are involved. Request five days prior if only Penn State sites[2] are involved. After sending in the bridge request, you will receive an e-mail to confirm your reservation. You will want to use a scheduled bridge for conferences with external clientele or for sessions exceeding two hours in length. • Request bridge at http://tns.its.psu.edu/forms/videoconfRoomReserve.html. You will need to know: 1. The location of the other sites' information (county, campus, and building and/or room number) 2. A technical contact's name and phone number for any non–Penn State locations 3. The conference mode to be used. For more information, refer to http://tns.its.psu.edu/Services/vidconf/videoBridge.html#Conference. If you choose conference mode, this is voice activated. • An on-demand bridge provides 10 ports that can be used at any time. Submit a request for an on-demand bridge at least two weeks prior to your first use at http://tns.its.psu.edu/forms/onDemandVidBridge.html. You will receive an e-mail with your call number and password, which you will provide to the other sites when using the bridge. Tech support is not provided. On-demand bridges are not recommended for programming with clientele but can be useful for internal business functions.	❏

(checklist continued, next page)

Checklist for a Multipoint Video Conference *(continued)*[1]

PERSON IN CHARGE	DEADLINE	STEPS	COMPLETED
Prior to Video Conference			
		Gather handouts and share as previously determined. Some possibilities include e-mail, ANGEL course-management system, or SharePoint.	❑
		Become comfortable with the equipment.	❑
		On-demand bridge: Provide IP address or alias and password to other site. If you will be connecting to a non–Penn State site, you will want to test your connection prior to the meeting.	❑
Day of Video Conference			
		Turn on system at least 15 minutes prior to start time.	❑
		Position the camera so that appropriate people are in sight of the remote participants.	❑
		Be comfortable with the remote. Set up the presets that will move the camera to the appropriate places.	❑
		Remote site dial in or you dial into the host site. • Type in IP address or alias at the home screen or use the Address Book to place a call. Press the call (green) button to place a call. • The Penn State on-demand bridge call will be 2222 followed by the alias you were given when you requested the on-demand bridge. There will also be a password with on-demand bridge. • Penn State scheduled bridge number is 2222. You will hear, "Welcome to the Penn State bridge."	❑
		Begin conference. • Make introductions. 1. Make sure that all sites can hear and see you. 2. Initiate the program by introducing self and facilitating the introduction of others at their site and other sites. Explain mechanics of interaction (Addendum D). Introduce program agenda, objectives or purpose of the session, what parts are live/remote, and the timeframe for the event. 3. Explain the mode being used. 4. Help the audience interact; watch for indications that someone wants to speak and help them get the floor when there is an opening. Encourage interaction!	❑
		Guide participants through the predetermined evaluation process.	❑

1. This checklist was created for Penn State. You may adapt or modify it for your state's use.
2. Penn State sites include all county extension offices and campus locations.

Opening Interaction Exercise

This is a simple example of an opening exercise you might use to initiate interaction among the sites and set the tone for the event. Anything that requires responses from the sites can be used. Responses may be communicated as individuals, teams, or sites, depending on the number of participants at each site. The key is to ensure the participants recognize that they have the opportunity to interact with individuals at sites other than their own.

INTRODUCTIONS (SMALL GROUP)

Have individuals introduce themselves and give some piece of information such as reason for participation or expectations for the program.

EXPECTATIONS (LARGE GROUP)

1. Have individuals list their expectations for the programs.
2. Have sites work as teams to share and then prioritize the expectations.
3. Have each site report its prioritized list of expectations.

Interaction Guidelines

These guidelines may reduce confusion and improve the success of your video conference. They should be shared with participants at the beginning of the session.

- Always mute the microphone when not speaking. This prevents distraction to all sites from incidental sounds such as someone tapping a pencil on the table, coughing, etc.
- When a participant wants to interact, he/she should:
  —Wait for a pause in the presentation.
  —Say something to get the attention of the facilitator, such as, "This is [name]. I have a question."
  —Wait for the speaker to acknowledge you so you know that he/she has had time to get the message and is listening.
  —Make your statement.
- An exception to this is when general discussion is taking place. At that time, the speaker will usually have to jump in and make his/her statement and hope no one else spoke at the same time. General discussion will not be as effective with a large group because of the difficulties in knowing who is speaking and when.
- Facilitators and speakers, remember to include ample question/answer time and to provide a significant pause after asking for interaction to allow people to respond.

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