Dynamic Distance Learning: Using Content-Providing Organizations to Their Fullest Potential

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Introduction

The integration of supplementary interactive videoconferencing programming into existing curricula is providing K-12 educators and content providing organizations with greater opportunities for expanding their reach via distance learning technology. However, many teachers and content providing organizations are looking for distance learning applications that extend beyond “electronic field trips” and static, didactic interactions. Even though videoconferencing experiences have been growing in popularity (especially in the early grades), they are often single exposure interactions that lack the potential to truly enrich the curriculum. Distance learning instructors are already beginning to think beyond traditional videoconferencing uses and are considering worthwhile partnerships and collaborations with other distance educators and content providers. They have realized that successful videoconferencing events are built on appropriate design and delivery strategies that are key to innovative distance learning programming. This paper will examine these notions and will highlight exemplary strategies that lead to highly interactive programs.

The Impact of Distance Learning Technology

The Interactive Experience Model

Understanding the best methods for successful and innovative distance learning instruction first requires educators to examine how they currently approach their regular instruction. The Interactive Experience Model (IEM) detailed in Figure 1 provides a graphic representation of how the three contexts for learning form a foundation for an interactive learning experience. Although designed by Falk & Dierking (1992) to explain how learners interact in an informal learning environment, the IEM has implications for any classroom. The IEM is comprised of the Personal Context, the Social Context, and the Physical Context.

Figure 1. Interactive experience model: from Falk, J.H. & Dierking, L.D. (1992).

The personal context takes into account individuals’ prior life experiences and expectations. Therefore, students with prior exposure to a particular topic will react and behave differently than novice learners. Additionally, students bring their own personal interests and understanding to the table, thereby influencing their interpretation of the information. As individuals come into contact with one another, they create the social context. This would include those interactions with family members, friends, peers, and teachers. Discussions that occur between learners further help the individual define the interpretation of experiences. The physical context is the actual setting, the physical environment. The classroom, chemistry lab, cafeteria, reading circle, and playground make up the physical environment as well as the materials that are held within those environments—desks, chalkboards, handouts, audio/visual equipment, maps, and so on. The physical

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context is the multi-sensory environment, those things that can be seen, heard, tasted, touched, and smelled. The combination of these three contexts provides the interactive experience. A learner takes into account prior life experiences, the influence of those around them, and their physical environment to generate understanding.

The Learning Environment Via Distance Learning Technology

While the IEM provides a framework for understanding how a learner is engaged in the regular education environment, the integration of distance learning technology can provide a unique quandary. Students involved in a videoconferencing experience, whether a single “electronic field trip” or semester-long “virtual course”, still interact within the three contexts. They still bring with them a personal context of agendas, background experiences, and learning modalities. They still interact among a social group, whether collaborating on a presentation with an on-site partner or answering a question posed by a remote site peer. However, the physical context becomes a divided entity (Figure 2).

![Diagram: The IEM with learners participating in a distance learning connection]

Figure 2: The IEM with learners participating in a distance learning connection: from Barshinger, T. A. (1999).

The technology has enabled the learners to experience and interact in two distinct physical contexts simultaneously. The students are now faced with not only interpreting the physical context in which their bodies are located, they must concurrently interpret the environment in which they are receiving a secondary source of auditory and visual stimulation. Therefore, learners must surmise a physical context while simultaneously experiencing two separate, yet connected, environments.

The remote site environment is also limited in the types of auditory and visual experiences it can provide. Auditory technology such as microphones and speakers can impede the sounds and voices that are being delivered. Similarly, a learner can only see what the remote site camera can fit in its range. Low-end monitors can jeopardize the quality of visuals that are being transmitted. Additionally, sensory competition from the home site can distract the learners from the content being delivered by the remote sites. Hallway noises, errant smells, and uncomfortable chairs can provide hurdles for attention. Further complications can arise simply from the technology itself. New users of the equipment may be more captivated by the workings of the technology than the content being delivered over it. The students’ technical orientation becomes even more apparent should a technical glitch, such as lost audio or streaking video, occur. Attention is immediately focused to the equipment. Therefore, a difficult question arises:

How can a multi-sensory approach to learning be used to promote meaningful, relevant, and engaging experiences for students via a limited sensory technology?

The answer to the question above is not an easy one. No distance learning connection will ever replace the experience of an actual on-site learning environment. However, engaging teaching strategies and unique production techniques can help overcome some of the limitations of the equipment. Before utilize these strategies, distance learning educators should reexamine their understanding of their role as a videoconferencing user.
Thinking Beyond

Entering the world of distance learning can be both ominous and exciting for educators. They are faced with unfamiliar equipment, new policies, different procedures, and that general feeling of uneasiness that often accompanies the thought of becoming a novice all over again. At the same time, teachers are presented with rare educational opportunities that may not have been available otherwise. When working with content providing organizations, such as a museum, zoo, or cultural agency, educators needs to think beyond the traditional modes of interaction and engage the content provider as a partner with whom they can collaborate, create, and instruct. Below are three suggestions for thinking beyond the typical engagements with content providers.

- **Think beyond being just a recipient of information. How can you be an originator of information?** The greatest feature of videoconferencing technology is its flexibility to synchronously deliver and receive information. Educators should ask themselves: “What content do I have to share?” and “How can I produce programming others would want to utilize?” By answering these questions, educators may discover the role their own expertise can play for creating original content programming.

- **Think beyond “us” and “them.” How can you be part of “we”?** The nature of videoconferencing technology sets the stage for an “us” (near end) and “them” (far end) situation. Different physical locations contribute significantly to this interpretation. Teachers need to remember the power of collaboration when engaged in instruction via distance learning technology. This collaboration could include a team of educators designing a standards-based program on pond life with the local science center, or a group of students organizing research for a debate on the topic of conservation for a nature center in another state. The efforts made to create materials and activities that stimulate meaning exchanges are necessary for making the technology medium “disappear” and the concept of “we”, as one group, viable.

- **Think beyond what a content provider can do for you. What can you do for them?** While some novice distance learning educators may eventually grow into originators of information, a greater challenge can be in understanding what you can provide for the zoos, museums, and other organizations from which you request information. There are the obvious public relations opportunities. Educator recommendations of quality programming to their colleagues increases a provides recognition and revenue. Just as important though, is the evaluative and community outreach resource educators become. Providers rely on feedback, obtained through evaluations and program requests, to assist in creating new events and revise existing ones.

Exemplary Strategies for Distance Learning Content Delivery

**Raising the production level.** While many educators may balk at the notion of bringing “Hollywood-like” techniques to the distance learning classroom, many simple production strategies can help raise the level of interest and quality for a distance learning event. These techniques are often overlooked as the average teacher or content provider educator lacks the knowledge for producing quality visual media.

- **Lighting.** Bring in external lights to help brighten dark spots at the broadcast site. Adjust window shading and/or overhead lighting to darken over lit areas.
- **Sound.** Wear a lapel microphone if available. Use multiple microphones when moving throughout a wide presentation space. Adjust sound mixers prior to a connection when using supplemental audio sources. Incorporate sound effects that can be delivered from a PC or other multi-media source.
- **Camera placement.** Avoid excessive backlighting by keeping the camera from pointing into a light source. Set presets for easy camera transitions. Use multiple cameras and video mixers for extra “wow” effects.
- **Scripting.** A scripted outline that includes recommended dialogue, suggested questions, and a cross-reference of camera shots and video sources can assist new users and provide consistency between programs.

**Integrating pre-, post-, and program activities.** Many educators and content providers have realized that single, isolated connections do little to increase students’ understanding of a topic. Introductory and follow-up materials and activities are necessary to help reinforce the content presented during distance learning events. Many content providing
Incorporating multi-media. Most videoconferencing hardware provides the flexibility to utilize supplemental video sources. In addition to VHS and DVD ports, PC centric systems and scan converter boxes for non-PC centric hardware can provide any user with access to a digital media source. Surprisingly, very few users take advantage of this capability. Some of the easiest ways to incorporate multi-media in a videoconference event include:

- Pre-produced video segments from a VHS or DVD player.
- Opening & closing “credit” sequences produced in Powerpoint, Director, or other similar applications.
- Live video streams from related web resources.

References


Biographical Sketch

Timothy Barshinger is an educational consultant for IDSolutions, a visual communications and technology company. He has a master’s degree in education with a focus on distance learning applications. This has enabled him to apply his former classroom teaching experience with a comprehensive understanding of videoconferencing/distance learning technology and applications. He works across corporate and educational markets with a special emphasis in the K-12 arena. As an educational consultant and trainer, he helps schools and content providing organization learn how to better integrate videoconferencing technology in their classroom and create enriching and exciting distance learning experiences.

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