Adapting Prior Television Production Experience for Distance Education Instructional Design

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The purpose of this study was to examine what previously learned television production-related experiences and knowledge television production specialists adapted in their instructional design of distance education programming. The purposive sample for this study consisted of 12 television production specialists who were employed for at least one year at universities across the United States, to produce live, interactive, video-based, educational programs. In addition, these specialists, prior to employment at their respective universities, had no experience or educational background in the field of distance education. Qualitative methods, including semi-structured interviews, observation, and concept maps, were used to collect data during the study. Findings show that television production specialists use their previous work experiences and knowledge of communication models on which to base much of their instructional design techniques. In particular, television production specialists use prior experiences as they take into account audience analysis, the instructor's needs, media integration, and the incorporation of interactivity in their instructional design of distance education programming.

Introduction

If you have read the distance education electronic mail discussion groups lately, you know that one of the "hot topics" being discussed and debated is the role of television production special-

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ists in the development of distance education programs distributed via a video-based medium. These television producers are the people who serve as the technicians — the "production people." However, according to the E-mail discussion groups and a recent study (Telg, 1995), at many universities these "production people" also are the ones who develop the instructional design of distance education courses. On one side of the debate, supporters of "television-production-specialists-turned-distance-education-producers" say that the television producers know the medium the best and, thus, are able to take advantage of its strengths to design the distance education programs that best suit the educational needs of audience members. Detractors have stated that video technicians or any noneducators should not be allowed to design these programs because they do not understand audiences' needs and are too concerned with the medium, rather than the program's content. One E-mail comment supported this view by saying, "The medium is not the message, and entertainment is not the goal."

Regardless of which side you are on, television production specialists do play an integral role in the design and development of distance education programs (Telg, 1995). In only one third of the distance education courses that Walsh, Gibson, Hsieh, and Gettman (1994) surveyed was an instructional designer involved in their development. When an instructional designer is not involved in a distance education program's production, television production specialists say that they are the ones who assume the instructional designer role (Telg, 1995). Because this group does not have educational theory or instructional design knowledge, how can they perform as instructional designers? This study, therefore, was designed to find out what previously learned television production-related experiences television production specialists adapted in their instructional design of distance education programming.

Literature Review

According to Garrison (1990), the use of such telecommunication technologies as television, radio, and computers in distance education marks "a new generation in designing the educational transaction" (p. 45). Researchers have said this "new generation" of technology calls for new knowledge and skills for instructors to teach effectively by distance education (Beaudoin, 1990; Brigham, 1992; Dillon, Hengst, & Zoller, 1991; Office of Technology Assessment, 1989; Shaeffer & Farr, 1993; Willis, 1993). Moore (1987a) stressed that distance education requires not only

experts in the content to be taught, but experts in the various media to be used: "educational technologists to see the media are integrated in the most effective ways, and adult educators who will interact with the learners on the basis of the prepared materials" (p. 14). Therefore, instructional designers, television production specialists, computer specialists, and other technical support personnel provide expertise in particular areas in which the instructor does not have experience (Kelly, 1990). Thach (1994) conducted a study of 107 distance education experts in the United States and Canada to identify key roles, outputs, and competencies in the field. The top three roles in distance education were identified as "instructor/facilitator," "instructional designer," and "technology expert" (p. 42).

The role of the distance education instructional designer has three components: "in relationship to the infrastructure, in relationship to the technology, and in relationship to people" (Murphy & Farr, 1993). In this setting, the instructional designer must function in relationship to the infrastructure as a reference for the resources available in that academic institution. In relationship to the technology, the instructional designer must know how certain technologies and media work. In relationship to people, the designer also must serve as an intermediary and mediator between the instructor and technical specialists (Brinkley, Pavlechko, & Thompson, 1991). Instructional designers must be able to work well with people and know how the various types of interaction are best facilitated in distance education (Kemp, 1985).

Instructional design comes into play in any educational arena when instructors try to identify which areas need to be taught to bring about the desired learning outcome in students (Dick & Carey, 1985). There are several instructional design models in distance education (Brinkley, Pavlechko, & Thompson, 1991; Price, 1994; Schieman, 1990). Monson (1978) noted that such a model should include four elements: *humanizing*, the process of creating an atmosphere which focuses on the importance of the individual and overcomes the distance by generating group rapport; *participation*, the process of getting beyond the technology by providing opportunities for the spontaneous interaction among participants; *message style*, the process of presenting what is to be said in such a way that it will be received, understood, and remembered; and *feedback*, the process of getting information about the message which helps the instructor and the participants complete the communication loop.

Developing effective feedback mechanisms between learner and instructor is essential to any form of education (Burge & Howard,

1990; Garrison, 1989; Moore, 1987b; Thach, 1994) and based on the distance education literature, the task of developing this feedback falls primarily on the instructional designer. To overcome the problems caused by the "nontraditional" classroom setting of most distance education classes, the instructional designer should have a strong theoretical knowledge base in psychology and adult learning (Kemp, 1985). Also, new instructional techniques to encourage interaction and feedback between learner and instructor must be used in the course (Garrison, 1989; Monson, 1978). Thach (1993) stated feedback was so important that the "full quality effect of a transactional educational experience cannot take place [without it]" (p. 292). In planning a course, the instructional designer does not have to be competent in that subject matter because most subject disciplines have a similar content structure of "facts, concepts, and principles" (Kemp, 1985, p. 208).

In courses transmitted by satellite, persons specializing in television production provide the technological expertise and advice needed in the development of such a course (Hausman, 1991). Because of their professional backgrounds, television production specialists have a greater understanding of the specific instructional design needs dictated by the requirements of television (Smith, 1991) and how to better provide instruction through this form of mediated communication (Garrison, 1989; Hart, 1984). Satellite videoconferences, like other technology-mediated forms of distance education, require considerable planning and prior production of materials (Dillon, Confessore, & Gibson, 1992; Salvador, Schmidt, & Miller, 1993).

To accomplish this planning, the television production specialist must be a *team player*, just like the other members of the distance education team. These specialists should act as consultants for people who have no experience in television production (Tucker, 1979). One skill that television specialists need, therefore, is *listening*, because it is one of "the key elements in the servicing of educational development ... because if you don't listen, you won't hear the question that is really being asked" (Tucker, p. 30).

Gayeski (1983) said that television professionals engaged in producing educational videotape programs should "know how people learn," be competent in other media, and understand educational psychology and learning theory (p. 24). This latter element may be difficult for commercial television producers and directors, according to Costello and Gordon (1965), because they are accustomed to the "arts of persuasion and amusement" and they are "not used to leading viewers to think for themselves"

(p. 75). Gayeski also suggested that, in addition to their knowledge of television production, these specialists should have some understanding of the field for which they are producing programs in order to design the message effectively. In the past, it was common for television specialists in an educational setting to have had some teaching experience (Costello & Gordon, 1965). Russell (1992) wrote that "conventional" television producers will be needed, even in "low-tech" video systems, but their role will change (p. 3). This new breed of producer will be primarily "an educator" who is interested in employing the least expensive but most effective medium to meet the needs of students.

Thach (1994) found that the primary emphasis — or "output" — in the instructional designer's role is on the collaboration with the instructor. "This," she wrote, "suggests that the instructional designer needs to assume a support function role and not presume to 'teach' the instructor how to deliver classes in a distance learning environment" (p. 49). The second-highest output identified was "ensure course design works with technology," which detailed the instructional designer's need to understand the media and the technology being used. Similarly, the top output for the technology expert was to "work collaboratively with instructors and instructional designers" (p. 51), while technology information was the second-highest output.

Methodology

The questions being asked in this study and the processes developed in collecting the data were best suited for qualitative research for the following reasons outlined by Bogdan and Biklen (1992, pp. 30-32): "The style of inquiry is descriptive; it is directed more to process than simply with outcomes and products; and it is guided by the data, through inductive reasoning, so that there is discovery, rather than confirmation." Qualitative research's essential concern is understanding the meaning of an experience (Bogdan & Biklen, 1992; Merriam, 1988). This study described the learning process of television production specialists and described the skills and knowledge these professionals need.

The purposive sample for this study consisted of 12 full-time, television production specialists who were employed for at least one year at institutions of higher education across the United States. The 12 participants represented 11 universities across the country. Of the 11 universities, nine were land grants.

The sample consisted of 2 women and 10 men. The years of experience in live, interactive, video-based instruction ranged

from one to 20 years. Eight participants were involved solely with the development of agriculture-related courses, while the remaining four assisted in the development of not only agriculture courses, but also other academic disciplines. Each person also had some type of communication-related undergraduate degree (journalism, film, radio/television). Prior to being hired at their universities, one half of the participants were employed in commercial television and one-half in educational videotape production. To be included in this study, participants had to: consider themselves television production specialists; prior to employment at their respective universities, have no experience or educational background in the field of distance education; annually produce and/or direct at least one live, interactive, video-based course and/or three videoconferences for educational purposes; and interact with subject-matter specialists and/or instructional designers during the course of a live, video-based, interactive production. ("Live, interactive, video-based instruction" is defined for this study as live instruction facilitated by television in the form of satellite, compressed video, cable television, or other similar distribution methods, where common to all must be accessibility to immediate two-way interaction of teacher and students, either by two-way audio/video or one-way video/two-way audio.)

Three data collection methods were used: semi-structured interviews, observation, and document analysis in the form of concept maps. Semi-structured interviews of approximately one-hour each were conducted with each participant. I observed five, videoconference planning sessions with two participants as they interacted with instructors and presenters, and participated in two audioconference calls. I also observed and participated in a videoconference rehearsal and actual day-long videoconference. The foci of the observations were on the interaction between participants and instructors/presenters and the extent to which the participants had instructional design input in the videoconferences. The third means of data collection was the analysis of concept maps pertaining to the situated learning experiences of the participating television production specialists. Concept maps are "spatial, hierarchically constructed representations of the relationships among essential concepts" (Deshler 1991, p. 337) that allow people to check assumptions regarding relationships among their ideas. At the conclusion of each interview, participants were asked to draw a concept map of their "mindset evolution" from producing television programs prior to their becoming involved initially in distance education to their experiences afterward.

Data were analyzed using the constant comparative method (Bogdan and Biklen 1992). As each interview was transcribed, I made notes as to potential categories. I read each transcribed interview several times. Data from each interview were coded to yield descriptive and interpretive categories that were compared with data collected subsequently. This process continued throughout the course of the interview process. Member checks were performed during the final stages of data analysis.

Findings

Television production specialists performed duties far beyond the job responsibilities that Thach's (1994) study reported they were supposed to perform. Many said they functioned as instructional designers, even though they did not have a background in instructional design or educational theory. Overwhelmingly, television production specialists maintained that they functioned well as both instructional designer *and* television production specialist. They believed that they could do as good a job in the design and development of a live, interactive, video-based course as a formally trained instructional designer because they are experts in their medium. One television production specialist saw himself as doing instructional design all along:

> I feel "instructional designer" is an embellished position, because I've been doing that for a number of years, and just of late, it's become kind of vogue to have that other person. I'm not being negative, insofar as that is not an important position, but in my opinion, I feel like I've been doing that and not knowing it.

All of the television production specialists in this study actively assist in the planning of the distance education program. The development of all the programs was similar. One specialist described the process as a period of "ascertainment":

> What audience are you trying to reach? Why do you think you need the teleconference? There are other delivery modes. Why the teleconference? What kind are we talking about? How much interactivity? Once you've ascertained the needs of the client, then you try to prepare a budget. Then, you work with the production staff.

To be able to help subject-matter specialists define these areas, participants said they serve as "listeners," "consultants," and, as the following participant designated it, a "sounding board":

> I'm a sounding board, because I have to know what the professor wants to get across to his students. I have to know what the audi-

ence is like, what grade level the viewers are on, and what type of audience is listening. What are the main points that they're trying to get across? That helps me to know what things are more important than other things.

The following section explores the various instructional design methods that television production specialists used on their jobs, based on previous experience in television production. Participants detailed several areas where they said they functioned as instructional designers. The most frequently mentioned area was aiding the subject-matter specialist in defining the audience and in defining the message. They also were involved in choosing media and evaluating the amount of interactivity in a program.

Analyzing Audience's Needs

Television production specialists found that considering the audience's needs was an important step in balancing aesthetics and content in a program. Several former educational videotape producers said because they had been involved in the production of educational videotapes, they already were concerned with what a message said, rather than the way in which it was said. However, those who had been involved in commercial television said it took time to truly begin analyzing audience needs because that was a function that they were not used to performing in their former jobs on a widespread basis. They said their audience analysis consisted of knowing enough about the audience to keep people tuned-in to a news program so television ratings would be high.

Another television production specialist summed up the participants' comments regarding audience considerations by saying that his priority, when discussing the design of a program with an instructor, was to be "an advocate for the students." He and others said serving as an adjunct student and looking out for their needs were important components of the design process. The specialist stated:

> For me, the idea evolved that the students are our customers, and we should serve their needs. So I slip into their shoes and see it from their viewpoint.

Instructors' Needs

Another consideration was the instructor or subject-matter specialist. Former commercial television producers saw the instructor as the "customer" or "client" and wanted to produce programs that would meet the needs of their customer. Former educational videotape producers were accustomed to working with these subject-matter specialists. However, one former educational videotape producer said there remains a degree of consideration

for the "look" — or aesthetics — of a program when he meets with subject-matter specialists in planning sessions.

> Sometimes I can sit in a meeting and ask subject-matter specialists about content and they begin to describe situations and objectives that they have, and it begins to roll in my head how this will look. I don't think that my first concern is the "look." I guess, automatically, I always know I'm going to strive for a good look, but what is the content? Information, to me, is the most important thing, because it's easy to put a look with it once you get into the content and once you get into the areas where video and short packages can be put together to accent the content.

Many times an instructor's lack of knowledge about television production and feelings of discomfort of teaching in front of a camera shape the aesthetics of a program. A former commercial television producer said:

> If I went for the "look," I would probably make sure that every bit of written material was done on the character generator. But I like the intimacy. It doesn't look good from a professional point of view for a teacher to write with a Magic Marker on a piece of paper. That's where we have a shot of the instructors tearing off the page and going to another page and writing in their handwriting. That's intimacy.

These television producers say they serve as guides by informing instructors what is and is not allowable, pertaining to visual images and sound, in a broadcast.

Integrating Media

Part of being a good instructional designer in a live, video-based, interactive context, according to the television production specialists, is knowing the medium intimately, knowing its strengths and shortcomings and knowing how it can be used to accurately and succinctly convey a message. A specialist noted:

> What I've discovered about instructional design is this: That if you're a good media producer, and you have a good feel for your medium, then you have a great grasp of how to shape the message to match the medium. A good radio producer who has never had a class in instructional design makes good instructional design judgments about his or her medium because he knows what works, based on having made a series of mistakes which teaches him what never to do again. They're not working from an educational principle. They're working from experience.

One of the functions of the instructional designer, as opposed to the particular duties of a television production specialist, is to look at the various media that can be used in a given instructional situation and to pick the best medium or media. Participants

stressed that television production specialists need to know the merits of other media, as well. One participant said that in many instances the medium was chosen before she was brought in to assist in the production-planning process:

> That aggravates me. I wish that we could be more involved earlier on when administrators are making these decisions. But if faculty members come to me and are open-minded enough, then I may suggest other media than what they initially decided. That's based on what their needs are, who their audience is, and what their learning outcomes are.

Interactivity

Another instructional design consideration is the desired level of interaction between the instructor and students. Television production specialists were not used to developing interactive programs, because for most of their careers they had been involved in a one-way communication delivery mode via broadcast television or videotape dissemination. However, designing ways of making the audience feel involved in a program — to the point of causing an action or a change in audience members' behavior — was part of many of their pre-distance-education-programming experiences. The importance given live interaction, as it pertains to satellite transmission, varies greatly among the participants in this study. Ten of the twelve participants said live interaction was extremely important, while the other two — who happened to be former commercial television producers — maintained that interaction did not need to be accomplished in a real-time mode for the class to be successful. The group of ten said without live instructor/student interaction, there is no reason to produce a live program. A former commercial television producer argued this point:

> Without interaction, you'd be better off doing it on videotape where you don't have to have a time-specific delivery. You can watch a tape whenever you want, instead of having to be at a certain place and certain time to watch a teleconference, so we push the interaction a lot.

The group charged that the primary reason for real-time interactivity is that it gives the learning experience a sense of immediacy, a "sense of urgency." Keeping in mind the needs of both instructors and students was another reason this group said real- time interaction was important. As one participant noted:

> My personal suspicion is that I think people like the ability to talk to the instructor. Having done a little bit of teaching as an adjunct lecturer in broadcasting, I know that feedback is more important to the teacher than it is to the student. And that's where I think interactivity plays its biggest role. It's most important to the teacher.

This group did not discount the merit of asynchronous interaction in other forms, such as facsimile, electronic mail, and telephone "office hours." One former educational videotape producer has an interdisciplinary interaction philosophy. She incorporated on-site interactivity during many of her programs. "I don't think you're going to have a lot of good learning taking place for most situations if you don't have interactivity built in," she said.

The other, much smaller group believed strongly that synchronous interaction is not critically important in a satellite program. "Virtual" interaction, taking place asynchronously to the live, video-based event, was viewed to be the interaction mode of choice. A "control issue" was much of the reason for this conviction: How much control do you give up to your audience? One of the two "virtual" interaction supporters commented on this:

> There are some control issues. You give up control when you take calls live. If someone does something really out of line in their call, we're on the hook for it, and all we can do is hang up on them.

Discussion, Conclusions, and Recommendations

The purpose of this study was to explore what previous television production-related skills and knowledge television production specialists adapted to their new positions as distance education producers. The study found that television production specialists use many television production-related skills and their knowledge of communication models to assist in their instructional design of distance education programming. Television production specialists think of themselves as instructional designers, but how can they consider themselves as instructional designers when they have no instructional design experience or training? I believe television production specialists act from an experiential base, rather than a theory base, for their "instructional design" techniques. The experiential base comes from their knowledge and use of communication models and how the television medium can be used to its best potential within those models.

Most introductory journalism and communication courses discuss communication models. Because the television production specialists in my study have degrees in communication-related fields, it is safe to assume they are familiar with communication models. These models, at their most basic level, entail a message sender, the message, and the message's recipient. For two-way communication, though, feedback from the recipient to the sender must occur. However, for most of their professional career, these television production specialists were not involved in true two-way

communication feedback. Most of their experience was a one-way mode — broadcast news and videotapes — which provided no feedback. However when they became involved in distance education, they had to contemplate and incorporate two-way communication techniques. They had to design ways to encourage feedback through this mediated communication. This is where their experiential "instructional design" came into play.

Because they had no instructional design training, they relied on their knowledge of effective communication strategies used in television to define their "instructional design." For example, they had to define audiences, present easily understood information, and develop ways to encourage interactivity. When participants began developing distance education programs, they had to think about the role that interactivity — two-way communication — would play in the design of the programs. To accomplish this, the television production specialists had to learn methods that encouraged feedback from the audience. By making the medium as transparent as possible to encourage interaction, the television production specialists adhered to Winn's (1990) belief that the strength of a course is not in the media, but in the instructional design and interaction between teacher and student. Researchers and practitioners who have written about television professionals stress that television producers of today must take into account their audience and employ the most effective medium to meet the needs of students (Gayeski, 1983; Russell, 1992).

Instructional design, though, is more than *just* communicating effectively; but in a distance education setting, such techniques as overcoming the distance and generating group rapport, providing opportunities for interaction, presenting the message in a way that it is understood, and getting information back to the presenter — feedback — are necessary (Monson, 1978). In many ways, then, these four elements are applicable to people who want to communicate to large or small groups. Hence, it is likely that the television production specialists drew upon their own experiences in communications to develop the instructional design strategies they needed for their live, interactive video-based productions. However, even though the participants in my study used past experiences on which to base much of their instructional design development, I believe it remains important for them to understand and incorporate educational or instructional theory in their distance education programs. The best way to do this is with formal training. Several participants have pursued master's degrees in adult education or taken college courses or workshops on instructional design to strengthen their knowledge base in this

area. They recognize that although they have a good communications foundation on which to build their design of distance education courses, they still need theoretical knowledge and some practical applications of how to transfer their television production background into actual practice.

My study focused on adapted practices used as instructional design methods by television production specialists in distance education. As a result of this research, I suggest the following implications for theory and practice. First, participants in this study overwhelmingly confirmed that interactivity is a necessary ingredient in any distance education context. Some disagreement existed among participants as to whether the interactivity needed to be synchronous ("real time") or asynchronous (time delayed). However, this disagreement reflects the debate on the importance of "real time" versus "virtual" interactivity taking place in the field of distance education (Russell, 1992). The study shows that participants came to their own conclusion about the merits of each type of interactivity as a result of their experiences with designing modes of interactivity in their programs.

Second, the study challenges the theory that a separate person acting solely as instructional designer needs to be involved in a distance education program. Thach (1994) found that when a separate person does not assume the instructional designer role, the logical choice to take on the role is the instructor. However, based on the findings in this study, within the context of the design and development of a live, video- based, interactive, distance education program, the television production specialist assumes the instructional designer role.

Third, since multiple roles exist in distance education, with the major ones identified by the literature and this study as subject-matter specialist (instructor), instructional designer, and technology expert (television production specialist), it would be helpful to determine who does what role in settings outside of live, interactive television. Such a setting would be the development of computer-mediated instruction used for distance education purposes.

Fourth and last, longitudinal studies, following one or two years of development of television production specialists, would be beneficial in building on the results of this study. A longer-term study would allow the researcher to examine more closely the multi-role functions of television production specialists identified in this study. Further, it would give us more insight into exactly *how* they learn as distance education specialists.

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