

A CASE-BASED APPROACH TO PROFESSIONAL DEVELOPMENT A Comparison of Traditional and Distance Education Formats

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Abstract: The purpose of this study is to compare two formats—traditional and distance education—for a case analysis/case writing model in a graduate course in professional development. First, the two formats with their accompanying data sources are described and analyzed using media theory. The formats differed in the media attributes of realism, interactivity and feedback, and interface. For example, synchronous chats in the distance education format allowed for immediate and targeted feedback not present in the traditional format. Second, the learning results based on themes emerging from the data sources in the two formats are described and analyzed using qualitative comparative methods. The themes indicate a greater emphasis on knowledge acquisition and a deeper understanding of multiple perspectives in the traditional format and more emphasis on skill development, confidentiality, and networking in the distance education format. Connections between the two formats and the results are then discussed with implications for practice.

INTRODUCTION

Distance education in various forms is part and parcel of the educational environment as we approach the new millennium. Much of the literature on distance education and computer use focuses on how to develop, implement, and fund programs (Pea & Cuban, 1998; Phelps, Wells, Ashworth, & Hahn, 1991; Sherry, 1996). Some literature discusses pre-conceptions of technology's role and ways to

promote student learning (Hoffman & Ritchie, 1997; Sadera & Hargrave, 1998). Studies comparing educational benefit for technology-based learning and traditional instruction fail to describe the attributes in meaningful detail based on media theory (Salamon, 1994; Suen & Stevens, 1993). Further, there is little evaluative information about process learning. In a recent ERIC search, the authors found approximately 4,500 references to distance education, but there were no studies compar-

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ing and evaluating varying formats for a case-based, process-oriented, professional development class.

Thus, the purpose of this study is to compare two formats for using a case analysis/case writing model in a graduate course in professional development. First, the two formats with their accompanying data sources will be described and analyzed using media theory (Smith & Dillon, 1999). Second, the learning results based on themes emerging from the data sources in the two formats will be described and analyzed using qualitative comparative methods. Connections between the two formats and the results will then be discussed. More specifically, four questions serve as a backdrop for this study: (1) What are the specific similarities and differences in the distance education and traditional formats? (2) What are the similarities and differences in the results from the two formats? (3) What are the connections between formats and results? (4) What implications for distance education arise from this study?

The case writing and case analysis model developed for a professional development class involved students in first analyzing already-written cases from both content and writing perspectives and then writing original cases based on work experiences in the human service professions (physical therapy, special education, speech and language, early childhood, foster care, and community extension). Combining the two processes of case analysis and case writing allowed deeper levels of professional development (Carlson, Quintero, & Karp, 1998; Driscoll, 1995; Ertmer, Newby, & MacDougal, 1996; McWilliam & Bailey, 1993; Shulman, 1991, 1992).

THE PROFESSIONAL DEVELOPMENT CLASS IN TWO FORMATS

The traditional format involved 11 human service professionals meeting for 40 hours in a face-to-face graduate level course. Two

instructors alternated working with the students for ten four-hour sessions.

The distance education format involved nine human service professionals meeting for 40 hours in varying arrangements. There were five four-hour sessions and one eight-hour session held via interactive television (full range of video and audio exchange with voice-activated microphones) with students in three locations separated by several hundred miles. In addition, there were four three-hour sessions using synchronous chats (text only).

In both formats, there were four major components of the class: case analysis, case writing, case critiquing, and case teaching. These four components and their data sources will be compared across the two formats and then analyzed using media theory (Smith & Dillon, 1999).

CASE ANALYSIS

Regardless of format, the students reviewed the content of two already-written cases, noting the who, what, where, when, and why of the case. They also role-played the issues, strengths, alternative options, and possible actions to be taken. Writing components—point of view, contextual descriptions, specific details, and storyline complexity—also were discussed.

In the traditional format, the students considered the two cases on separate days. They met in small groups in different parts of the classroom and developed the role-play scenarios, which were acted out for the whole group. Instructors structured the experiences through guidelines presented on an overhead projector and circulated around the room observing and supporting the discussion. Data gathered included reflections on the class experiences, which involved short written papers and recording of group comments on overhead transparencies.

In the distance education formats, the students reviewed the cases on a single eight-hour day in order to save travel time. Because the

students were in different sites, one group with a student from each of three sites met via instructional television (ITV). Other students formed groups, which met in rooms adjacent to the ITV rooms in each site. The role-plays and discussion took place with the whole group. Instructors used an Elmo document camera to present guidelines and circulated between the ITV and out-of-room group in one site; at the other sites groups met alone. Here, the data sources were reflections sent by e-mail to the instructors.

CASE WRITING

In both formats, the writing process began with free writing about issues encountered in the students' work and/or personal lives. At first, some students were reluctant to put pen to paper and actually formulate ideas. However, because the writing would not be collected or graded, and participants were encouraged to let the pen do the directing, everyone was soon writing. At the end of twenty minutes, it was difficult for many to quit. The experience was similar in both formats.

After the free writing, students began to write drafts of their own cases. These were discussed in small three-to-four member groups (home groups) for support and encouragement in the traditional format. Students brought drafts of cases to class and met with members of their home group. Instructors circulated among the groups, offering support and reflective comments. Data sources were instructor observations and reflections.

In the distance education format, students worked in home group dyads. They first faxed or e-mailed their case drafts to each other. Then, at scheduled times, they engaged in online synchronous chats with a peer mentor. Questions about case development, about appropriate topics, and about writing style arose in the chats. After some initial access and interaction issues, the students were able to "discuss" their cases. Data sources were the printed chat scripts from the online discussion.

CASE CRITIQUING

After home group work, the cases were distributed to other groups (critique groups) in the class. Members of these new groups had no previous experience with the case and came to it with fresh eyes and ears.

In the traditional format, students distributed hard copies of their cases. Critique group members then discussed the cases thoroughly using guidelines presented by the instructors. One group member summarized the critique comments into a group commentary and presented it to the writer, who could use the ideas for further case revision. Data sources were the written group commentaries coming from the critique groups.

In the distance education format, students e-mailed or faxed their draft cases to critique group members following a schedule and guidelines presented by the instructors. The students then met online for a chat with both peer mentor and instructors. Group commentaries, the data sources for this course component, summarized the recommendations and were sent by e-mail to the case writer.

CASE TEACHING

After the cases were completed, students were asked to develop principles for professional practice that arose from their cases. They also were asked to creatively teach the principles to the whole group. Various simulations, role-plays, and discussions arose.

In the traditional format, the presentations took place in the classroom, with principles for professional practice printed on large presentation pads (data sources). Discussion followed the presentations.

In the distance education format, the presentations took place via ITV with across-site small-group presentations followed by large-group discussion. The principles for professional practice were summarized on PowerPoint slides (data sources) which served as a backdrop for the presentations.

MEDIA THEORY AND THE TWO FORMATS

Media theory clearly delineates the attributes that form the structure of media. These attributes include realism, interactivity and feedback, and interface (Smith & Dillon, 1999). Analyses of these attributes in the two formats reveal unique characteristics of teaching and learning. Realism is an attribute that emerges when there is adequate "bandwidth" for concrete and true-life interactions. In both the traditional and ITV portions of the distance education format in this class, there were opportunities for seeing class members, noting both verbal and nonverbal expressions. Role-plays and discussions seemed nearly as realistic in each format. Voice activation was particularly positive in facilitating seamless discussions. In the online chats, realism was generally absent, as these were synchronous, text-based dialogues. Students indicated that having seen classmates via ITV prior to the text chats was important as they could imagine how peers looked as they read the written words.

Interactivity, another media attribute, becomes two-way when the technology allows this. In both formats, two-way interactions were constant and synchronous. All three levels of interactivity—learner-teacher, learner-learner, and learner-content—were present in both formats. There was active engagement through discussions and role-plays. In the distance education format, photographs and personal artifacts were shared via the Elmo. A sense of community arose as the instructors tried to compensate for distance issues with more personal sharing.

Feedback between learners and between learners and teachers varied in the two formats. The online text-based chats offered specific and immediate feedback. Problems or questions could be addressed through instantaneous responses targeted specifically to needs. This was not as true when instructors were circulating among groups in the traditional format. Feedback was more sporadic and less focused.

Feedback also varied in the reflection sections of the class. When reflections were presented by e-mail, instructors often responded in turn, initiating a dialogue rather than the usual instructor comments presented on student papers. More sensitive personal and interpersonal issues were shared via e-mail as well as in face-to-face encounters.

Learner-content interactions also varied. In contrast to the paper listings of professional practice principles, PowerPoint slides illustrating the principles seemed more powerful and engaging. They served as organizers of learning and clarified the themes of the teaching presentations. Perhaps the visual, abstract, and simplified appeal of the PowerPoint slides were just the type of clear symbolization needed.

Interface refers not only to navigation, but to learner control and pacing. Pacing may be controlled by the learner, the instructor or the group. In both formats, the pacing of learning during class times was usually instructor- or group-controlled, while the learner was more in control in out-of-class writing and case development. However, in the distance education format, when some small groups worked independently, away from instructor input, the group was in control of its own pacing and sometimes felt more sense of collaboration (see Table 1).

THE EFFECTS OF THE PROFESSIONAL DEVELOPMENT EXPERIENCE

Throughout the professional development period, tentative hypotheses about student learning were generated and emerging themes recorded. The data sources were read, reread, and coded and exchanged between researchers who reviewed each other's data. The first time the data sources were read with an eye to general content and themes. During the second reading, coding of separate topics across the themes in the various sources was completed. The third reading included attention to discon-

TABLE 1
Relationship of Elements in Traditional and Distance Education Formats

Components	Data Sources		Media Attributes
	Traditional	Distance Education	
Case Analysis	Hard copy reflection papers	E-Mail Reflections	<i>Interactivity</i> enhanced through e-mail dialogues <i>Realism</i> in both formats
Case Writing	Instructor observations	Transcripts of on-line synchronous chats	<i>Feedback</i> targeted to specific questions and needs in on-line text chats.
Case Critiquing	Summaries of group comments written by hand	Group commentary word processed and sent through e-mail	<i>Feedback</i> enhanced through word processed group commentary.
Case Teaching	Principles of practice printed on large paper	Principles of practice with graphics in PowerPoint	<i>Interface</i> between learner and content simplified and clarified through PowerPoint slides

firming evidence—were there data to support themes and hypotheses other than those originally developed? What were these data? Tentative themes were revised. During the fourth reading, representative samples within each theme and data source were selected. Ongoing discussions clarified questions about the data and confirmed emerging variables. At the conclusion of this process, the common core themes (effects) were identified (Bogdan & Biklin, 1997; Erickson, 1990; Strauss & Corbin, 1995). The results in each format will be summarized.

TRADITIONAL FORMAT

For the traditional format, the major themes that resulted from the qualitative analyses outlined above included: (1) gaining new knowledge, (2) “really seeing” from multiple perspectives, and (3) developing a sense of support and renewal. These themes crossed the data sources described above.

Gaining New Knowledge

Knowledge acquisition included learning about new laws that affected the human service professionals working with young children and their families, and laws related to foster care, medical care, and child abuse.

Other knowledge focused on the specific job tasks and terminology used in each of the professions represented—what people actually do in the different fields—emerged through the discussions. Another knowledge area encompassed statistics regarding problem issues—how many families are homeless, and how many families lack adequate health care.

One student said, “I learned about the foster care system...what placement rules are, and how advocates for children impact what happens in this system.” Another student said, “I gained new insight into terminology used in occupational therapy. The basic vocabulary list brought by one of the participants really helped me with basic knowledge. This led to greater understanding of how occupational therapists contribute to programs involving young children and their families.”

Support and Renewal

The second theme focused on the support of the group in completing the tasks of the professional development experience—in analyzing published cases, in writing and analyzing cases based on personal experience, and in teaching the cases. Further, it focused on how the support of the group affected and supported participants as they worked through difficult issues in the real world of work.

One student commented,

Through the other cases, my own case issues were normalized and the perspectives of each of the players viewed with more objectivity. I could transfer this [to] my actual case and found it helped me deal with the situation on my job with more ease. I felt I had made a professional 'jump.' That also was most liberating professionally and therapeutic for me personally.

“Really Seeing” Multiple Perspectives

The third theme included gaining understanding about the life circumstances of others in terms of their total life situation. It included being able to step into another person's shoes and see the world from his or her point of view. Further, there was also a deepening insight into how other people might view the participants and their work.

One student said

I have to admit that I have not always taken into consideration other perspectives when dealing with the various situations in my work. In just these few weeks, I find myself looking at problem situations in such a different way. I am looking at everything from multiple perspectives and it has caused changes in my style . . .

Another student said, “My dislike of the manager of the welfare hotel in one of the cases lessened as I saw the participants step into his shoes and see the dilemmas he confronted daily.”

DISTANCE EDUCATION FORMAT

The major themes that resulted from the distance education model included: (1) gaining new skills in using technology, (2) developing networking connections with professionals serving children and families from different community agencies, (3) describing the multiple levels of complexity in advocating for families in the contexts of their communities, (4) respecting the need for confidentiality, and (5) using personal and professional histories as

vehicles for understanding current work issues.

Gaining Skills in Using Technology

The first theme focused on the use of technology, where there was acknowledgment of success in using new skills, of the connective function of technology, and of the apprehension in trying new strategies. Related to technology, one student said,

“I think this experience seemed to communicate more than any of...my other ITV experiences. I didn't have that feeling of a 'distance gap' as in other ITV experiences. In the past I have felt as though something has been missing (personal interaction, identities, etc.)”

Another student said, “I'm getting excited and a little nervous about how all of this is going to work. This was the best part of the day—I need to use new skills.”

Developing Networking Connections

Related to networking, there was a desire for more information about different work situations: how did the people connect with families in meaningful ways in their jobs? What professional knowledge was helpful? There was also appreciation for alternative perspectives and affirmation of similarities in working with clients. One student commented: “Meeting all of the people good people in the classes also makes me realize how so many of us deal with the same issues no matter where we work...we all have the same struggles and we can connect with each other.” Another student commented, “I see how all of us from different professions are supporting and helping each other—offering suggestions.”

Describing Multiple Levels of Complexity in Advocating for Families

The third theme related to complexity. Areas such as multiple solutions to problems,

context dimensions in family situations, and the necessity of all voices being heard were addressed. Related to complexity, one student commented: "You included many levels of issues in your cases—empowerment vs. pushing and doing for, conflict of interagency goals vs. parents goals...." In response to a case, another student commented, "Was there enough consideration of the complex context? Was the solution written as a recipe to follow?"

Using Personal and Professional Histories in Work Situations

Related to personal and professional histories, the participants struggled with boundary issues and self-renewal, as well as moral and ethical values. There were instances where the experiences written about in the case paralleled and resonated with similar situations in the writer's personal life. One student commented, "Remember how we talked about cases and their meaning to where we are in our own lives... We need to consider boundaries—we cannot be there for other people's families if we are not there for our own family." Another student commented, "The issues with young children and their families are similar to issues I face with my aging mother...all vulnerable populations share concerns about care and safety and family strengths to deal with situations."

Respecting the Need for Confidentiality

The fifth theme focused on the need for confidentiality in working with clients and in

writing case studies based on professional experiences. Issues included securing permission from clients, working in small communities where clients are easily known, and the threat of rumor spreading. One student commented: "It's hard for me to figure out how to change the case in order to protect family privacy...." Another student commented, "Sometimes I combine information from several experiences into a composite case to protect the identity of the people I am writing about."

CONTRASTS AMONG THE THEMES IN THE TWO FORMATS

In reviewing the themes emerging from the data sources in each of the formats, there are several contrasts. In the traditional format, there was an emphasis on gaining knowledge—learning the content from the different human service professions. In the distance education format, there was a greater focus on skill acquisition in using technology.

Enhancing support and renewal involved engagement at deep levels of interpersonal relationship in the traditional format. In the distance education format, stress was on the description and experiences of networking and sharing problems.

Likewise, the "really seeing" multiple perspectives included a deep and broad "stepping into the shoes of" clients and colleagues in the traditional format. In the distance education format, there were more specific foci on using personal history, describing levels of complexity, and respecting confidentiality.

TABLE 2
Themes Emerging from Data Sources in Two Formats

<i>Traditional</i>	<i>Distance Education</i>
Gaining content knowledge	Gaining technology skills
Enhancing support and renewal	Developing vehicles for networking
"Really seeing" multiple perspectives	Describing multiple levels of complexity
	Using personal and professional histories in current work
	Respecting the need for confidentiality

CONNECTING THE CLASS FORMATS AND STUDENT LEARNING RESULTS

As noted above, the student learning themes resulting from the classes differed for the traditional and distance education formats. Perhaps the greater exposure of information through the Internet and electronic communications resulted in more emphasis on confidentiality in the distance education format. How to share information without violating confidentiality did not arise in the traditional format.

In the distance education format, there was more emphasis on using selfhood and personal histories in working with clients. This could be due to the more frequent sharing of personal situations through electronic means. Some of the inhibitions present in traditional class interactions may be removed when chats and e-mail are used. The personal revelations and connections were more conscious in the distance education format, which could contribute to a greater emphasis on the self and its connection to clients.

Networking was of greater importance in the distance education format. The tools for communication—e-mail, telephone, and chats—offered the means and model for networking, and removed the isolation often felt in rural areas. The electronic networking was seen as an important model to be carried into day-by-day work. Appreciation of others' work situations and knowledge occurred in the traditional format, but was not tied to networking as such.

Acquiring technology skills was a source of great pride and accomplishment. Participants in the distance education format felt that they had "entered the 21st century" and had gained skills useful outside the course and classroom. E-families and applications to jobs were developed. One student sought to use text chats with her autistic high school students.

Although not absent in the distance education format, there was a greater depth of perspective-taking and colleague support and renewal in the traditional format. Perhaps

group members had more generalized, less targeted responses to each other and from the instructors in the home and critique groups in this format. This could have led to more extended struggle and deeper probing of the perspectives of others and a more intense examination of the issues. The group control of learning and the clear graphic presentations in some of the distance education situations did not compensate for the extensive face-to-face, open-ended exploration of issues in the traditional format.

IMPLICATIONS FOR PRACTICE

The questions of this study do not reside in determining which is the best way to offer facilitation of a process professional development class, (e.g., case analysis and writing). Rather, the questions addressed in this study have focused on the particular ways that each format (traditional and distance education) supports case analysis and writing and the ways that learner outcomes differ in the two formats. Through probing these foci, not only do format differences and effects arise, but also implications for practice for distance education teaching in a process class. These implications include the following:

- Consider the limiting and facilitating effects that may emerge from the targeted, immediate feedback available through use of technologies such as synchronous chats.
- Enhance interpersonal connections in distance learning situations through sharing of and discussing photographs and personal artifacts.
- Develop firewalls to protect confidentiality where sensitive issues from the human service professions are discussed or presented online.
- Recognize that the realism available through ITV allows much interactive discussion and role-playing in addition to—or rather than—talking-head lectures.

- Acknowledge the significance of technology skill acquisition for networking and connecting with human service professionals who serve young children and families in various regions.
- Highlight the effects of clear graphics in organizing—but also condensing—content.

By clearly describing and analyzing the media attributes found in particular distance education classes and connecting these to teaching and learning, greater understanding of the roles various technologies play in distance education can be achieved. These understandings can then be connected to the desired learner-learner, learner-teacher, and learner-content experiences which, in turn, are united with the desired learner goals and outcomes (Falk & Carlson, 1995).

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