

CHAPTER III: METHODOLOGY

Context Description

The online learning program used in this study was an initiative in an upper mid-west first-ring suburban school district. At the time of the study, the district served approximately 8,000 students from various economic backgrounds. Of those students, approximately 11 percent were identified as students of color, 3 percent were identified as English language learners, and 13 percent received free and/or reduced lunches. The district had three secondary schools: one high school and two junior high schools. The student population was about 2000 students at the high school and about 1000 students at each of the junior high schools. Approximately 200 teaching staff were employed at the high school and between 80 and 90 at each junior high school, for about 370 secondary faculty in the school district.

District level administrators who were interested in investigating the benefits of an online curriculum delivery system first expressed interest in the online learning initiative. They continued to discuss the possibility of creating an online learning program, and decided to visit other school districts in the nation that were running online learning programs. After the site visits were completed, administrators determined that the district would, with the support of the school board, initiate a synchronous online learning program.

After receiving Board approval, district level administrators worked with two staff members who were part of the initial online learning program discussions. Together, this team of people planned a training program and solicited interest from all secondary faculty. In the fall of 1999, all secondary teaching staff were presented with the opportunity to learn how to develop a synchronous online course. Presentations about the opportunity were made during faculty meetings at each of the three secondary schools. All faculty members were invited to participate in the training for online course development and had the option of being paid for that training at the standard in-service rate. The training consisted of four, four-hour sessions. The curriculum was designed to teach staff members about the software programs and procedures for placing curriculum

in the online environment. The training was a hands-on experience conducted in a district computer lab. During each of the sessions, materials were presented that instructed participants in the methods required to take traditional course materials and place them in a online environment using the Blackboard (TM) course presentation software. Upon completion of the training, participants were offered a stipend of \$2,000.00 to then develop an online course. Upon completion of the course development, teachers were offered an additional \$2,000.00 stipend to teach the course. As expected, some members who started the training program did not continue with developing and/or teaching the course (specific participation numbers are presented in the sample section of this chapter).

Studying the perceptions, experiences, and insights of both sets of participants presented the opportunity to gain new insights about participation or lack of participation in online learning programs. In addition, this study allowed for a comparison and contrast of the experiences of the two groups and provided the data to draw conclusions from those differences and similarities.

Through this study, the researcher gained a better understanding about the factors that influence faculty participation and experiences in a secondary online learning program. It was anticipated that new understanding around perceived barriers and incentives to faculty participation with online learning would be generated from the reflections program participants offered. Additionally, it was intended that the data gained from this work would provide new insight into secondary schools' online learning programs and what is required to get a more successful start to a growing phenomenon in public secondary school programming.

Research Design

The paradigm used for this study was qualitative research. The term, qualitative, is an “umbrella concept” (Merriam, 1998) used to gain an understanding of a particular experience or phenomenon. Specifically, qualitative methods were used to understand the experiences, perceptions, and insights of secondary educators who participated in learning how to develop and potentially teach an online course.

Recognizing that multiple realities exist in how individual participants engaged in the online program experience, semi-structured interviews were the method used (Creswell, 1994). The researcher posed questions that prompted participant descriptions and reflections on their experiences and perceptions. Themes and/or patterns that emerged from the interviews about the online program were tracked, described, and analyzed. One of the main tasks was to explicate the ways people in this particular setting have come to understand and act on perceived incentives and/or barriers that they have experienced as a result of entering the online course development training and implementation opportunities offered by this particular school district.

The role of the researcher was (1) to develop an interview protocol grounded in the literature on the DEL model, Fullan's phases of the educational change process, and research-based knowledge about faculty participation in post-secondary online programs; (2) to pilot the interview protocol and make revisions as needed; (3) to conduct individual interviews with willing interviewees; (4) to code interview data; (5) to analyze the data; and (6) to report findings.

Findings included emergent themes and patterns that are common among participants at previously identified stages of the online program: initial training, course development, course implementation, and post-course delivery reflections. Also reported are any contrasting themes or patterns that emerge among participants, especially noting potential differences from individuals who did not progress into developing an online course or delivering that course to students. The result of this analysis was a more in-depth understanding of the perceived incentives and barriers that influence secondary faculty in delivering an online course.

Other methods were considered for gathering data. However, knowing that there was little if any previous research done in this area, it was thought that survey questions and more directed interview techniques would not be as effective as an open-ended interview format. Such methods rely on a strong understanding of previous learning to build questions which target specific information in a given topic area. As the purpose of this study was to gain a broad understanding of multiple participants' experiences, providing an open-ended format brought a wide-angle lens to the research process. This process was intended to gain a broad understanding of the participants' perspectives so

that subsequent work done in this topic area will have a foundation to use when targeting more specific components of the distance education experience in secondary schools as it relates to online learning.

Sample

Participants for this study were drawn from the pool of persons who participated in the online training program the district offered to its secondary teachers. Thirty-six teachers volunteered to enroll in the training. Of those, only nine continued through the stages of online course development and implementation. In order to gain as much data as possible, the researcher attempted to interview all thirty-six participants using the following participant contact procedures:

1. A letter of invitation was sent from the program coordinator informing participants that a study was being conducted. The letter introduced the purpose of the study, the researcher, the type of study being conducted, and the criteria required for participation in the study. It included the responsibilities of the participant, role of the researcher, and the data collection procedures.
2. The letter included a stamped postcard addressed to the researcher. It also included the researcher's contact information as well as boxes to identify whether the person would like to participate in the study or whether he/she would like to decline from participating in the study. Persons were also given the opportunity to respond by e-mail or by voicemail if they would chose to confirm or decline participation.
3. Upon confirmation of his/her participation in the study, the participant was contacted by the researcher by phone or e-mail to inquire about any additional questions or concerns the participant might have.
4. If the program participants did not respond in two weeks, the researcher sent a follow up e-mail or letter.
5. If the researcher did not receive signed consent forms from the participants one week following the reminder, the researcher contacted the participants and sought a final response from the participant regarding his/her interest in participating in the study.
6. When participants returned the signed consent forms, the researcher contacted each participant and set up a date, time, and location for the interview to take place. During this contact, it was also mentioned that the researcher would contact

the participant the day before the interview to remind the participant of the scheduled time and location. During this conversation, the researcher also presented the participant with the opportunity to ask any additional questions the participant might have before the interview.

7. The researcher conducted the interviews from February through May of 2003

Instrumentation

The major tool used in this study to gain participants' perspectives and insights was an interview protocol with open-ended questions. A semi-structured open-ended interview method was chosen because it allowed participants to offer their views on the questions posed without responding to multiple choice or other types of narrowed responses. As identified by R.E. Stake, interview is "the main road to multiple realities" (1995, p. 64). There were three steps involved in the interview protocol: initial protocol construction, pilot interviews, protocol revision.

Initial Protocol Construction

As was mentioned earlier, the interview protocol was organized using content within the DEL model, Fullan's change stages, and research-based knowledge about past work done with incentives and barriers to faculty participation in distance education programs. The final consideration used in developing the interview tool was knowledge that there were two distinct groups of participants involved with this study: individuals who developed and taught courses and individuals who did not fully develop or instruct a course.

The DEL model provided topics to use in the study. What the model did not provide was a chronological framework that was unique to a change process. Michael Fullan's (2001) work with the educational change process was used for this purpose. This information was very useful in providing a chronological structure. This structure was used to help identify experiences research participants were likely to have at each change phase. Experiences that are characteristic of each phase were used to help construct interview questions that were designed to gain perceptions from participants as to how the characteristics of each phase and the administration of the characteristics of

each phase affected their willingness to participate or remove themselves from the program.

Next, the change phases were combined with the DEL model. In each phase, the corresponding elements of the DEL model were included. The first phase, initiation, was paired with the control and instructional technology topics of the DEL model. The second phase, implementation, was paired with the transformation elements of the DEL model: administration/management; communication processes; content/curricula; behavioral science and socialization; and delivery activities and interaction. The third phase, institutionalization, was paired with the outputs: effective learning process, student achievement, personnel satisfaction, financial accountability. The feedback identified in the DEL model was included in the institutionalization stage as well.

Finally, key findings from the research-based knowledge on incentives and barriers were used to supplement Fullan's change phases and the DEL model. What the research-based knowledge provided were specific findings from previous studies. The major incentives and perceived barriers to participation in distance learning activities indicated in previous research include: a person's familiarity and interest with technology, technology leadership, a faculty member's time and energy available to put into new learning and course development, a person's perception and past practice as it relates to being an early adopter or resistor to new programs and proposals, and a person's tendency to receive satisfaction from intrinsic reward.

After the structure was completed, the interview script was designed. The script was first broken into the three phases identified in Fullan's work: Initiation, Implementation, and Institutionalization/Continuation. Next, sub-questions were designed to elicit from the participants their experience and perceptions. The sub questions were created using the topics of the DEL model that corresponded to Fullan's change phases and the five areas of key findings identified from the research based knowledge. The interview protocol is provided in Appendix A.

Expert Review and Pilot Interviews

Before formal data collection took place, the researcher invited expert review of the interview protocol and tested the interview protocol to ensure that it elicited

participants' perspectives and insights. The interview was presented to multiple persons with a versed knowledge in educational technology. It was also presented to members of the researcher's dissertation committee. Revisions of the interview questions were made, and then the interview was piloted.

The first attempt to deliver the interview was with two members of the participant pool, one participant who remained in the program and one who exited the program. The person exiting the program reviewed the protocol and offered suggestions to the researcher. The person remaining in the program agreed to be interviewed and videotaped. The interview protocol was followed, and, upon completion of the interview, the participant was asked to reflect on the interview and offer changes to the protocol that provided for better clarity and omissions. This interview was videotaped to allow the researcher to observe, critique, and improve interviewing techniques. This pilot interview also served as a practice session with the recording equipment, transcription, and data analysis processes.

Revised Protocol

The researcher made changes from the initial protocol. Changes included using the interview to identify the type of training the participant received. During the pilot interviews, it was brought to the researcher's attention that multiple types of training were used to bring more individuals into the program. If individuals could not make the training sessions, the option of receiving individual training was also offered. It was also suggested that more prompts be used to help people recall the reasons considered when deciding to participate or not participate in the online course development and delivery program.

After the changes were made to the pilot protocol, the revised protocol was presented to the persons who piloted the interview for their approval. When the persons who piloted the interviews gave their approval, the protocol was established and used to collect data. A copy of the final protocol is provided in Appendix A.

Data Collection: Interview

At the time of the interview, the interviewee was given the opportunity to ask any questions that he/she had regarding the study and the interview. Next, the researcher presented the human subject study and consent for participation form and reviewed it with the participant. Permission to use audio recording equipment was also sought. Confidentiality was explained and the participant was given another opportunity to ask questions before deciding to provide informed consent. After questions were addressed, all participants signed the forms indicating informed consent for participation. Next, the researcher initiated posing the interview questions. A description of the demographics relevant to the study related to all of the study participants was compiled and is reported in Chapter four of this study.

During the interview, the researcher also took notes of the participant's responses and comments while the interview was recorded. The researcher also included a description of the context and any other influencing factors that might be present at the time of the interview.

At the end of the interview, there was an opportunity for the participant to provide additional information that he/she thought would assist the researcher in understanding the training program or in constructing recommendations for future programs. The researcher also inquired about the interviewee's willingness to be contacted by phone in the future should additional questions or the need for clarification arise. Finally, the researcher explained that after a transcript has been made of the interview, a copy of the transcript would be sent to the interviewee to check for accuracy in representation of views. At this time, the interviewee could also add additional pertinent information.

Data Analysis: Interview

There were two primary sources of data analyzed: (1) verbatim transcripts developed from the audiotaped interviews; and (2) field notes taken by the researcher during and immediately following each interview. The following is a description of how the transcripts were prepared for analysis.

The researcher transcribed the interviews verbatim, as soon as possible after the completion of the interview. The transcripts included the initials of the participant "I1

(for interview #1), I2, I3, etc...” before each of his/her statements. “R” preceded any statements or questions presented by the researcher. Each transcript contained a heading that included the person interviewed, date, time, and location of the interview, as well as any additional information that was relevant to help the researcher remember the content and context of the interview (Bogdan and Bilken, 1992).

The transcript was given to each respective interviewee to check for accuracy, clarity, and completeness. Only four participants made changes in the transcripts, and these changes were minor such as grammar corrections and additional information the participant wanted to include but had not mentioned during the interview. Edits to the transcript were made accordingly with the result being the final version of the transcript to be used for data analysis.

The final transcripts were coded for analysis. Field notes and the verbatim transcripts were analyzed and organized by the researcher. As a result of the analysis, text units of information were determined to facilitate coding. Tags and labels assigned meaning to chunks of data whether they were words, phrases, sentences, or paragraphs. Codes were assigned as they related to the research questions identified in the study, providing a framework for the researcher to follow (Miles and Huberman, 1994).

Data were organized in two sets: participants who developed and delivered a course and the participants who did not fully develop or deliver an online course. A three-step data analysis process was used. First, the participants who developed and delivered an online course were analyzed individually in response to each research question, followed by an analysis of responses across all the finishers related to each research question. Second, the participants who did not complete the development and delivery of a course were analyzed using the same procedure. Third, responses from the two sets were contrasted and compared as appropriate for each research question.