ONLINE PROFESSIONAL DEVELOPMENT:
A STUDY OF FIRST YEAR ONLINE TEACHERS

A dissertation submitted to the
Kent State University Graduate School
of Education, Health and Human Services
in partial fulfillment of the requirements
for the degree of Doctor of Philosophy

by

Maria A. Boyarko

August 2009
A dissertation written by

Maria A. Boyarko

B.S., Youngstown State University, 1999

M.S., Youngstown State University, 2004

Ph.D., Kent State University, 2009

Approved by

________________________________, Co-director, Doctoral Dissertation Committee
Steven L. Turner

________________________________, Co-director, Doctoral Dissertation Committee
Alicia R. Crowe

________________________________, Member, Doctoral Dissertation Committee
Mark A. Kretovics

Accepted by

________________________________, Director, School of Teaching, Learning, and Curriculum Studies
Alexa L. Sandmann

________________________________, Dean, College and Graduate School of Education, Health, and Human Services
Daniel F. Mahony

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The purpose of this study was to explore how online teacher participants identify their professional development goals and the elements that should be included in the design of a professional development course for online teachers in K-12 education. The research questions addressed in this study were 1) What are the professional development goals of online teachers, and 2) which elements should be included in the design of a professional development course?

This research was conducted as a basic interpretive qualitative study that focused on professional development goals and instructional design preferences of the four first year online teachers. Interviews, an observation of a synchronous session, analysis of online classrooms, and course documents were collected and analyzed to identify the teachers’ professional development goals and instructional design preferences.

The findings of this study indicated that: (a) the online teachers have goals of increasing student engagement, (b) the online teachers have a desire to increase their knowledge and ability in using technology, (c) the online teachers prefer to have professional development course content that is relevant to their specific online teaching needs, and (d) online course content should be offered through a variety of presentation techniques.
ACKNOWLEDGMENTS

I would first like to thank Bill Lager and Skip Thomas who provided me with an amazing amount of support throughout this entire process. Words cannot describe my appreciation. Without you, this would not have been possible.

I would also like to thank my committee, Dr. Kretovics, thank you for all of your advice during this process; Dr. Crowe, thank you for allowing me to have your phone number on speed dial, and for being so accommodating. I really appreciate our meetings over coffee. Our meetings and discussions were so helpful, especially with methodology; and Dr. Turner, who took me under his wing and guided me during this amazing journey. Dr. Turner, I know you are as tired as I am at this point, thank you for the endless time and effort that you have given me during this journey. I learned so much from you.

I would like to thank my participants, who will remain nameless, for their trust in me and their dedication to the field of online teaching and learning, and the facilitator of the course, Britny Pierson, who sacrificed her personal time to facilitate the course that set the context of my research. I would like to thank the friends I made along the way, Wendi Battershell and Tameka Ellington. The two of you have been with me every step of the way, we did it! And last but not least, my family.

My husband Aaron, whose support at home made this process manageable, and to our four children, Nicholas, Anthony, Joseph, and Ava. Thank you for sharing me during this challenging time of my life. Your sacrifice was the greatest of all.
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CHAPTER I

INTRODUCTION

Advancements in information technology have set the stage for a new type of teaching and learning. Through information technology, online learning has provided teachers the opportunity to educate students beyond the traditional classroom walls. Online learning allows for an educative experience that offers a sense of freedom for those who cannot commit to the confines of traditional face-to-face learning by using Internet technologies.

By participating in online learning, one can encounter an appropriate amount of interaction as conducted in traditional face-to-face courses. Audio and video capabilities are available for students and teachers to see and hear each other in real time. Collaborative group work can occur during flexible times through various media. One can also engage in asynchronous learning, which allows for communication that is not live. This communication takes places during different times and can occur on different days. Discussion boards and email are examples of asynchronous communications.

Students and teachers can also work together through collaborative media, which enables students to co-author papers or journal articles or participate in a peer review process. Presentation options are available that allow for student sharing of documents.

Many opportunities are available to advance the quality of online teaching and learning programs; however, online teachers must first be provided with the adequate knowledge and support to effectively teach online through professional development.
opportunities. There is a significant gap in the research literature considering the influence online professional development has on online teaching. Currently in Ohio, there is no specific online teaching requirement for online teachers to fulfill during their pre-service teacher education experience. Therefore, it is necessary to examine the education that online teachers engage in beyond their pre-service experiences; this can be accomplished through the study of online professional development.

Statement of the Problem

“Although the exact number of students taking online courses across the country is unknown, knowledgeable estimates put the number of enrollments up to one million students” (North American Council for Online Learning [iNACOL], 2007b, p. 3). Considering that estimation, it is imperative that online or “virtual” teachers receive adequate professional development opportunities to enhance their knowledge and ability to effectively teach online courses. Online teachers are not always prepared to teach online. “Often, regular classroom teachers are asked to teach in an online environment with little or no prior experience, and with limited training” (Rice & Dawley, 2007, p. 8). Based on a national survey conducted by Rice and Dawley, 62% of teachers reported having no professional development experience prior to their teaching online. Even more alarming was the finding that only three states require online professional development for online teachers (Rice & Dawley).

With the lack of prior online teaching experience that new online teachers typically possess and the skills needed for all online educators to be effective,
professional development is a vital opportunity for online educators to gain the knowledge and skills specific to their needs as online teachers.

Although research about online professional development for adults in general, and teachers in particular, has been an emerging field of inquiry over the past five to ten years, very little is known about empirically identified practices and methods for effectively training K-12 virtual teachers and the variety of contexts in which they teach. (Rice & Dawley, 2007, p. 5)

Standards set by various institutions provide suggested guidelines for effective teaching; however, it is currently the responsibility of the school or program with which the online teachers are affiliated to provide the necessary professional development (Rice & Dawley, 2007). This means that the enforcement of quality in online teaching falls into the hands of the educator or institution. To encourage adequate online professional development, the Southern Regional Board of Education (SREB) has published a set of standards for online professional development that recommend guidelines for planning and evaluating online professional development programs.

The SREB professional development standards are recommended for educators, school leaders, and state leaders (Standards for Online Professional Development, 2006). They encourage data driven decisions, evaluation of professional development programs, and the usage of assessment data collected from the evaluation of the program to “determine academic needs and successful learning strategies” (p. 3). The SREB suggests implementing the appropriate technologies and a discretionary amount of face-to-face and online sessions using multimodal presentations to reach various learning styles which
address different learners. The SREB also recognizes the need for collaboration among educators during their professional experiences and promotes the delivery of online content to offer equity and quality in online teaching. Based on various database searches for literature in online professional development for online teachers, this work is truly groundbreaking as it was the only organization that released online professional development standards for K-12 online teachers. Even with the guidance of these standards, much is left to the discretion of the school or state program as they will have different state policies and licensure issues to address. To provide further direction for online school districts, online teaching standards were also developed and adopted by various online teaching and learning organizations.

Online teaching standards are also suggested by particular organizations, such as the SREB and iNACOL. For example, the SREB (2006) released standards for online teaching by creating a list of standards and indicators that an online teacher must possess for demonstrating quality in online teaching. These teaching standards address state licensing requirements and the teachers’ knowledge and performance in the areas of curriculum, instruction, assessment, technology, online classroom management, and evaluation procedures (SREB, 2006). iNACOL endorsed the work of the SREB by adopting those essential standards with the addition of the Ohio Department of Education’s Standards for the Teaching Profession and the Teacher Evaluation Rubric from the Electronic Classroom of Tomorrow (ECOT), and created a checklist of National Standards for Quality Online Teaching (iNACOL, 2008). In addition to suggested online teaching standards, online teaching certificates are also available through institutions.
such as Sloan-C, which is a consortium of institutions and organizations funded by the Alfred Sloan Foundation.

As evident from the above agencies’ attempts to implement standards for online teaching and online professional development, it is imperative that online educators are capable of delivering high quality online teaching, and that they receive the proper skills, attitudes, and knowledge base to deliver instruction online just as effectively as they would in a traditional face-to-face environment. For the purpose of this study, professional development was delivered through the same technology the teacher participants use to teach their own students, IQity. IQity is the learning management system of choice for the online school that employs the participants.

The online school that employs the teacher participants is the first and largest K-12 statewide online charter school in the country (Lager, 2002). Currently all 9,000+ students receive their educational materials and online instruction through the IQity Learning Management System. The online school has recently created a professional development environment, where their teachers receive online professional experiences to ensure they are able to learn using the same software as their students. Enabling teachers to learn in their teaching environment will assist in developing an understanding of online students by online teachers (Segrave, Holt, & Farmer, 2004).

The professional development session that this particular group of teacher participants experienced was designed to advance a teacher’s knowledge of online teaching. This particular session is followed by various themed sessions that focused on the individual needs identified by the teachers to ensure they are receiving the education
that they have determined necessary. The decision to develop the sessions according to the teachers’ practical needs stems from adult learning theories. The adult learner is motivated, self-directed, and participates in formalized education by choice (Brookfield, 1986; Williams, 2003). Adult learners also “define themselves largely by their experience” (Knowles, 1980, p. 50), and have a deep investment in its value. Knowles also acknowledged that adults have much to contribute concerning the learning of others, have a rich foundation of experiences, and have acquired a large number of fixed habits of thought, which could hinder their ability to be open-minded. Through the work of Houle, adult learning orientations were developed, also known as the typology of adult learners, indicating that adult learners are goal oriented, activity oriented, and learning oriented (Merriam, Caffarella, & Baumgartner, 2007).

New to these teachers this year is online professional development focusing on practical concepts of online teaching and learning. With an overwhelmingly high population of at-risk, special education, and economically challenged students, this group of online teachers received more specific instruction for their individual needs. More research in the area of online professional development for online teachers is necessary as empirical research in this arena is lacking (Rice & Dawley, 2007). “As a result, educators and policy makers designing competencies for K-12 teachers currently rely on the research base from higher education and on the personal experience of trainers and educators in K-12 education” (p. 8). This inadequate amount of research demonstrates the need for more empirical K-12 professional development research concerning the teaching of online teachers.
The Purpose of the Study

The purpose of this study was to explore how the online teacher participants identify their professional development goals and the elements that they find to be important in the instructional design of an online professional development course. This study investigated the online practices of online teachers and the experiences and outcomes that resulted from an online professional development course.

Research Questions

The limited research regarding online teachers’ goals and instructional design preferences in a professional development course offered to K-12 educators was the foundation of this study. Specifically, the research questions that informed this study were as follows:

1. What are the online teachers’ professional development goals?

2. Which elements should be included in the design of a professional development course?

Teachers’ explanations of online teaching and learning through interviews, a synchronous class meeting, analysis of the online classrooms, and analysis of course assignments were examined. The interviews were exploratory in that they were constructed as an attempt to identify the online teachers’ explanations and perceptions of their online teaching and sought to identify the online teachers’ needs and abilities in using technology, and their preferences for learning online. Findings were based on the data collected from the teacher participants, which was first analyzed according to the support provided by each individual and then from the group as a whole.
Definition of Terms

The following terms were used throughout this research and are defined to provide clarity to the readers of this study.

Distance Learning: Learning through the physical separation of student/teacher and/or students.

E-Learning: Teaching and learning conducted through the Internet.

Learning Management System: Software used to deliver and manage instruction.

Paradigm: Basic set of beliefs (Creswell, 1998).

Professional Development: Continuing education offered to enhance job related skills.

Reliability: Validates study by demonstrating the results as consistent and dependable (Merriam, 2002). Examples used to prove reliability are triangulation, peer examination, and the audit trail (Merriam, 2002).

Triangulation: Combination of qualitative and quantitative data with equal weight with a concurrent and separate collection of the data that will be combined to facilitate an understanding of the phenomenon (Merriam, 2002).

Validity: The ability of the research to draw meaningful and accurate conclusions from all of the data in the study (Creswell, 2007).
CHAPTER II

REVIEW OF THE LITERATURE

This study is informed by distant teaching and learning literature and situated within adult learning and first year teaching research. Research shows that distance learning has made a move toward constructivist frameworks with an emphasis on the understanding of distant learning experiences (Garrison & Vaughan, 2008). This study examines the experiences of the first year distant teachers learning online.

Adult Learner

According to Brookfield (1986), the adult learner is motivated, self-directed, and participates in a formalized education by choice. Through the work of Houle, adult learning orientations have been identified. These adult learning orientations are also referred to as the typology of adult learners indicating that adult learners are goal oriented, activity oriented, and learning oriented (Merriam et al., 2007).

Based on findings of adult learning, there is a need for adults to have flexible pacing and course designs, accessible course materials and outside sources, and instruction delivered through multiple presentation modes (Brookfield, 1986; Cercone, 2008; Mezirow, 1991). It is a logical consideration to understand the distant learning perceptions and experiences to appreciate the phenomenon that will help provide more opportunities to the complicated dilemma of adult learners.

As one attempts to provide flexibility in course delivery, distance learning courses are offered. There can be a challenge presented by the distance to provide students the
ability to interact through communicative and collaborative opportunities and engage in critical discourse. An ideal learning environment for an adult involves communication as attributed to the communicative domain of learning, as developed by Habermas. Through Habermas’ theory of Communicative Action, one is aware of the importance of language as it is used to assist humans in developing understanding with others and to define themselves and “their relationship to the objective or subjective world” (Coulter, 2001, p. 91). Through this theory, the significance of critical discourse is attributed. By implementing opportunities for critical discourse, students can raise challenging questions and engage in negotiations and bargaining. The conditions for critical discourse are the same conditions that are foundational in the development of adult learning (Mezirow, 1991). Ideally, the challenge of adult educators is to “help learners learn what they want to learn and at the same time acquire more developmentally advanced meaning perspectives” (p. 199). The conditions that lead to discourse and adult development are as follows:

- Adults are provided with accurate and complete information.
- Adults are free from coercion and self-deception.
- Adults are given the opportunity to weigh evidence and evaluate arguments.
- Adults are given the opportunity to be critically reflective.
- Adults are encouraged to be open to various perspectives.
- Adults are encouraged to accept an informed, objective, and rational consensus as a legitimate test of validity.
Habermas also linked understanding with meaning making and the validation of communication as rationality while rejecting forced truths (Mezirow, 1991). This process of dialog is considered argumentation. Argumentation to Habermas includes the autonomous act of reasoning through argument to consider judgments and claims of validity (Mezirow). To engage in this process of critical questioning and negotiating, students and instructors can sustain environments of democratic dialog. Democratic dialog enables teachers to become better teachers “by helping themselves and their students forge better understandings of themselves, their social world, and their objective world” (Coulter, 2001, p. 91).

Professional Development

Professional development is defined and approached in many different ways, as there is no single definition for professional development, and a range of approaches that can be employed depending on the needs of the stakeholders. However, the definition used for this study is “continuing education offered to enhance job related skills.” It has also been suggested that professional development is most effective when presented as an example of what one would expect from the participants (iNACOL, 2008). As applied to online teachers, this study examined the impact online professional development has on online teachers, delivered in their online environment, using their online technologies. Online professional development includes the use of the Internet as a tool for the delivery of instruction and as a means of communication between the students and the instructor.

Traditionally, most models of professional development are based on a stage model where a teacher moves through stages of cognitive development ranging from
novice to expert (Rice & Dawley, 2007). Tillema and Imants presented several models of professional development such as *Training for Conceptual Change*, which is conceptually and research based, and is intervention oriented seeking to alter “the teacher’s own knowledge base and instructional strategies” (Tillema & Imants, as cited in Guskey & Huberman, 1995, p. 137). Another model of professional development is the *Cognitively Guided Training Model* developed by Carpenter, Fennema, Peterson, Chiang, and Loef (Tillema & Imants, as cited in Guskey & Huberman, 1995). This model is also conceptually and research based; however, the *Cognitively Guided Training Model* is instruction oriented, which incorporated research literature into their problem solving processes (Tillema & Imants, as cited in Guskey & Huberman). *Teacher Study Groups* is another model of professional development, initiated by Joyce, Murphy, Showers, and Murphy, and strives to restructure the work environment through the organization of teachers into study groups (Tillema & Imants, as cited in Guskey & Huberman). This model is experience and research based and instruction oriented (Tillema & Imants, as cited in Guskey & Huberman). *The Promoting Change in Teaching Practice Model*, developed by Richardson, is also experience based, intervention oriented, and inquiry based (Tillema & Imants, as cited in Guskey & Huberman). This model strives to help teachers “examine their beliefs and possibly alter certain invalid conceptions about the intended change” (p. 140). Much of the control and direction is handed over to the teachers as they are provided materials and support to change their teaching (Tillema & Imants, as cited in Guskey & Huberman).
Guskey (2000) outlined several other models for professional development such as training, observation/assessment, involvement in a development or improvement process, study groups, inquiry or action research, individually guided activities and mentoring. The training Guskey referred to consisted of “large group presentations and discussions, workshops, seminars, colloquia, demonstrations, role-playing, simulations, and micro-teaching” (p. 23). The observations included teachers observing others or being observed by others. These observations include feedback, reflection and analysis to assist the teachers with their professional growth (Guskey, 2000). The involvement in a development or improvement process model brings educators together for a specific task such as reviewing curriculum or designing a new program for the school (Guskey, 2000). Study Groups were also mentioned by Guskey as a model of professional development, which involves dividing the staff into small groups for the purpose of “finding solutions to common problems” (25). The Inquiry/Action Research model was designed to provide educators with the opportunity to learn through a problem solving process that allows them to search for answers to their professional questions (Guskey, 2000). Individually Guided Activities were also presented by Guskey as a model of professional development, which enables educators to select their own professional development goals while selecting the activities that they believe will assist them in meeting their individual goals (2000). Mentoring was also indicated by Guskey as a professional development model that “involves pairing an experienced and highly successful educator with a less experienced colleague (Guskey, 2000).
A study conducted by Desimone, Porter, Garet, Suk Yoon, and Birman (2002) examined the effects professional development has on a teacher’s teaching. Specifically they looked to find evidence as to whether or not professional development can change a teacher’s teaching. Their findings indicated that a change in teaching would occur if the professional development that the teachers receive is of high quality and consistent. The study indicated that the majority of teachers did not have this type of professional development experience. The authors suggested that school districts focus their professional development on small groups of teachers where they can provide focused, high quality activities that will effectively change teaching practice. What the authors did not include in their implications was a suggestion as to how such districts would select the teachers that would receive the high quality professional development experience.

Drawing heavily upon the work of Tillema and Imants (1995) and Guskey (2000), several models of professional development have been outlined above to demonstrate the range of possibilities provided to those educators who wish to engage in professional development opportunities.

Traditional Educators Learning Online

Quality professional development is a dynamic and fluid process. If appropriate structures are in place (context), a variety of best practices (processes) are used, and appropriate knowledge and skill acquisition are occurring (content), then professional development will impact student achievement. (The Mid-Continent Research for Education and Learning [MCREL], 1997, p. 2)
The MCREL suggests that schools and organizations ask the following questions when developing professional development:

1. How do we work toward an environment that supports adult learning for increased student achievement?
2. How do we design, deliver, and evaluate effective professional development focused on best practices?
3. What do we, K-16 educators, need to know and be able to do to ensure that all students and all pre-service teachers are proficient in mathematics and science?
4. How do we work toward an environment (culture, norms, policies, roles, and relationships) to support adult learning for increased student achievement?

In addition to the preceding questions, MCREL incorporated their vision of nine goals to ensure professional development would increase student achievement in math and science. These goals include results-driven procedures, data collection, ongoing assessments, the creation of a learning community, research methods and practices, capacity building processes, the development of active learners, the acknowledgement that change is a process, and the attention given to both individual and organizational change (MCREL, 1997).

A study conducted by Garet, Porter, Desimone, Birman, and Yoon (2001) found professional development activities more likely to be effective if they are part of a coherent program, which builds an activity on prior activities, and is followed with more advanced concepts. Included in the coherence of this particular study was the alignment
of activities to state, national, and local content and pedagogy standards, and the sustained, ongoing professional collaboration with other teachers.

The Center for Comprehensive Reform and School Improvement (2006) has determined characteristics of effective professional development. These characteristics are based on research reported over the last two decades relating to effective professional development and suggest practices such as beginning with a strong foundation in subject matter and pedagogy; the integration of district goals, long term plans and data driven decisions; the use of teacher identified needs as a basis for planning; the dedication of sufficient time and resources; continuous and ongoing experiences with the incorporation of adult learning principals; and an evaluation of the process. With the convenience of technology, many school districts have begun using online software to educate their teachers.

In Louisiana, math teachers in certain districts are participating in the Louisiana Algebra Online Initiative as a method of professional development (O’Dwyer, Carey, & Kleiman, 2007). This model was created to improve educational opportunities for students by providing them with a high-quality, standards-based curriculum delivered online by a certified mathematics teacher and to support the professional development of teachers in hard-to-staff schools by partnering them with a highly qualified teacher-mentor who is available online. (p. 69)

Through this process of professional development, in-class teachers participate in several online professional development courses that consist of modules relevant to their
teaching of Algebra 1 with their online mentors (O’Dwyer et al., 2007). They receive personal support throughout the program from their online mentors to incorporate the concepts learned from their online professional development courses into their classrooms.

The key findings regarding the effectiveness of the professional development of this study were individualizing approaches of teacher development to allow for success of individual challenges, designing activities around collaborative interpretations of classroom experience between the online mentor and in-class teacher, embedding practical professional development opportunities that address day-to-day situations, and the availability of the mentor to act as a resource for the in-class teacher.

Some professional development is occurring as a blended design. Wideman, Owston, and Sinitskaya (2007) identified three online professional development initiatives that currently exist in Canada. These projects were The Advanced Broadband Enabled Learning (ABEL), The Teacher eLearning Project, and The Learning Connections Project. The Advanced Broadband Enabled Learning (ABEL) established a collaborative learning community for teachers using Broadband technologies with the goal of providing teachers with the opportunities to engage in a self-directed, inquiry based, on the job professional education (Wideman et al.). The ABEL community implemented projects inside their classrooms including elements such as video streaming, video conferencing with students, student designed web pages, Power Point® presentations, and other digital artifacts (Wideman et al.). As part of the ABEL community, teachers and students both had access to the ABEL website, discussion
boards, forums, chats, and calendar of ABEL events, and a portal that provided software and tools for the community (Wideman et al.). In addition to the online collaborative sessions, teachers attended two 3-day face-to-face sessions to aid in the community building for the professional development (Wideman et al.).

The Teacher eLearning Project provides professional development in a blended fashion for science and math teachers from grades 6-8. The goals of this educational opportunity are to improve teachers’ and students’ attitudes and knowledge of their subject matter, and to improve classroom practice in teachers and engagement for students (Wideman et al., 2007). The program began with a face-to-face session and continued with eight weeks of online discussion based sessions and ended with a face-to-face session (Wideman et al.). The online portion of the professional development course included any of the following: downloading of professional articles, video examples of teaching, applets, worksheets, forums, and chat sessions. Teachers also engaged in reflective activities where they shared their journals with each other regarding their experiences (Wideman et al.).

The Learning Connections (LC) initiative is a project aimed toward increasing student achievement in literacy and numeracy for grades 4-6 (Wideman et al., 2007). Teachers begin with three face-to-face sessions and continue with their professional education online through web-based technologies. The teacher participants are provided broadband services where they receive live videoconferencing and streamed media connecting them to experts in the field. The web portal is used for the professional
development activities and maintains the LC calendar, resources, and tools needed for the professional development project (Wideman et al.).

Traditional educators have a variety of models and initiatives designed to create an online professional learning experience for those who are teaching in traditional face-to-face environments. This section was created from database searches consisting of empirical and theoretical literature along with the frameworks of the models and initiatives ranging from online to hybrid experiences. Those found to be influential regarding the online and hybrid models and initiatives in the literature are the Mid-Continent Research for Education and Learning organization (MCREL), The Center for Comprehensive Reform and School Improvement, and the Louisiana Algebra Online Initiative, and for blended experiences those that surfaced were the Advanced Broadband Enabled Learning (ABEL) project, the Teacher eLearning Project, and the Learning Connections initiative.

Online Educators Learning Online

Along with all of the new information technologies that came with the development of E-Learning, came expectations of good practices and quality in regards to online teaching. As there is much education provided by universities in teacher preparation programs available for traditional teachers, there is much to be desired by teachers who choose the path of E-Learning. Successful E-Learning teachers are said to be flexible in adapting courses for online delivery (Simonson, Smaldino, Albright, and Zvacek, 2006). They have the ability to organize a course in a manner conducive to learning, provide detailed instructions, have “open” communication policies and offer
feedback efficiently, develop learning communities among students, and stay current on new technologies and developments in distance education (Simonson et al.). Very few programs prepare educators as virtual, or E-learning teachers (iNACOL, 2007b), and often the traditional classroom teacher with no or limited E-learning experience and minimal preparation is asked to teach online courses (Rice & Dawley, 2007). This makes online professional development imperative.

According to the work of Gold (2001), two major instructional frameworks have emerged within the instructional design of online professional development: objectivism and constructivism. Gold described objectivism as a systematic approach created by the designer which includes performance objectives and the instructor’s role as one charged “to teach the students a well-circumscribed body of information within a well defined learning environment” (p. 36). Gold described constructivism as “less content-oriented and more learner-centered; the designer goal is to create an information-object rich, and socially meaningful environment” (p. 36). Authentic tasks, integration of multiple tasks, and reflection are also embedded within this instructional framework (Gold).

Gold (2001) associated the objectivist framework with Programmed Instruction methods. Programmed Instruction as defined by Merriam-Webster (1961) is “instruction through information given in small steps with each requiring a correct response by the learner before going on to the next step.” Major contributors whose ideas shaped program instruction were Pressey, Skinner, and Glasser.

According to Wright, Marsh, and Miller (1999), the first teaching machine was invented in 1934 by Sydney L. Pressey, but it was not until the 1950s that practical
methods of programming were developed. Programmed instruction was reintroduced in 1954 by B. F. Skinner of Harvard, and much of the system is based on his theory of the nature of learning. As programming technology developed, so did the range of teaching machines and other programmed instruction materials. This form of instructional technology evolved from Skinner’s behavioral research in 1953 to Bloom’s Taxonomy in 1956. Soon “Glaser’s (1962) work in instructional systems and Gagne’s (1962) analysis of learning objectives became instrumental in implementing evaluation and feedback into instructional development goals” (Wright et al., p. 8).

Walter Dick (1965) presented “four basic tenants” that are assumed in programmed instruction.

1. The subject matter is systematically presented in small bits to the student.
2. The student is an active participant in the learning situation by constructing an answer to a question.
3. The student receives immediate information about the quality of that response.
4. The student continues at his own rate to the next frame.

According to Gold (2001), this systematic delivery of professional development is rejected by much of the online design methodologies as they no longer focus on the training of people, but educating them. This shift focuses on engaging an active learner instead of providing information to a passive one (Gold). A study conducted by Gold investigated a “two-week” faculty development pedagogical training course aimed at preparing online teachers to operate effectively within an online environment” (p. 35). This study specifically sought to identify the transition from traditional to online
instruction in regards to their ability to provide their students with a quality education. The course used constructivist instruction and incorporated “virtual field-trips, online evaluations, interactive essays, and group projects” (p. 35). This study concluded with findings that teachers gained knowledge and appreciation for online courses.

A study conducted by Rice and Dawley (2007) reviewed 259 online K-12 stakeholders, which included 167 virtual teachers, 61 virtual administrators/coordinators, and 15 professional development trainers, from 41 different online schools spread throughout 30 states. Through a survey instrument, this study sought to examine the practices and models currently being used in K-12 virtual schools along with the factors that influence the design of the professional development (Rice & Dawley). Rice and Dawley found that professional development was delivered through a variety of media and a mixture of online, hybrid, and face-to-face approaches. They also found that the school or program was the major source of delivery of professional development sessions. Rice and Dawley indicated that the overall design of the professional development opportunities of those surveyed was delivered as an approach to increase their teachers’ skills, capacity, and knowledge to teach effectively online.

Rice, Dawley, Gasell, and Florez (2008) conducted a follow up study where they specifically examined the “unique needs and challenges of K-12 online teachers” (p. 3). This study was conducted as a quantitative study that included 884 teachers from virtual, hybrid, and brick-and-mortar (with online components) districts. The study found the top three challenges of the online teachers to include (a) time management, (b) student responsibility and (c) technology. The professional development needs of the online
teachers found to be most important were (a) use of communication technologies (74%),
(b) time management strategies (62%), and (c) risks of academic dishonesty to learners
(60%).

iNACOL (2008) also conducted a research brief that focused on one specific type
of professional development, mentoring. According to this brief, the participating schools
in this study “have learned that a successful mentoring program is key in developing
effective novice virtual school teachers. Mentoring programs are still new to virtual
schools, but they may also be a factor in teacher retention” (iNACOL). They later go on
to explain, “In any case, an effective mentoring program will benefit the mentee through
development of knowledge and skills, the mentor through development of leadership and
communication capabilities, and the school through the sharing of ideas and expertise”
(iNACOL). The types of mentoring mentioned are described in Table 1.

The purpose of the iNACOL mentoring brief was to provide readers with a
variety of mentoring models and options and to demonstrate the importance of mentoring
programs for online educators.

As the newness of virtual schooling is considered, it is evident that more research
needs to be done in the field of online professional development focusing on online
teachers. As iNACOL (2008) declared,

Online education has evolved to become a widely accepted practice only within
the last five years. In addition, only a few programs preparing teachers and
leaders have recently begun to include virtual schooling. Yet it is widely
Table 1

*Types of Mentoring*

<table>
<thead>
<tr>
<th>Types of Mentoring</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task-based mentoring</td>
<td>Focus placed on an individual’s short-term need to improve a skill or acquire knowledge in order to fulfill a new role.</td>
</tr>
<tr>
<td>Experience-based mentoring</td>
<td>Pairs an individual, who is new to an organization or a role, with a mentor who has experience in that role.</td>
</tr>
<tr>
<td>Just-in-time mentoring</td>
<td>Matches mentors with individuals who have an unanticipated need for assistance.</td>
</tr>
<tr>
<td>One-to-one mentoring</td>
<td>Centers on a single mentor working with a single mentee.</td>
</tr>
<tr>
<td>Team mentoring</td>
<td>Joins groups of mentors with groups of mentees.</td>
</tr>
<tr>
<td>Formal mentoring</td>
<td>Involves explicit expectations of the mentoring process and/or outcomes by specifying such characteristics as timelines, achievements, progress reporting, benchmarks, and communications formats.</td>
</tr>
</tbody>
</table>

*Adapted with permission from iNACOL, 2008.*

recognized that quality is tightly linked with professional development and training. (iNACOL, 2008)

This section has drawn on the work of iNACOL (2008), along with that of Rice and Dawley (2007) regarding the gap in teacher preparation for virtual teachers. Along with the identification of the need for professional development, the traditional component of professional development for virtual teachers was originally done through programmed instruction. Through the work of Gold (2001), it has been determined that there is a need to shift from an objectivist approach to a constructivist approach as constructivism allows for a more learner-centered and socially meaningful environment.
After a search of several online databases, very few empirical studies surfaced regarding online professional development for online educators examining the type of professional development delivered to the virtual teachers and the means to do so, again emphasizing this critical need to produce more empirical research regarding online professional development for online teachers.

First Year Teachers

In addition to the challenge of teaching without walls, a school building, or students physically present in the classroom, the teachers in this research study are also new to the teaching profession.

First year teachers face unique challenges such as challenging and unclear expectations, isolation, and the shock of reality (McKinney, Jones, Strudler, & Quinn, 1999). In addition to the challenges, a significant body of research has been conducted on the phases of first year teaching. As a teacher begins his or her profession, he or she will most likely move through three phases that were identified through the work of Fuller (Ryan, 1986). These phases are as follows:

- Survival Stage
- Mastery Stage
- Impact Stage

Ryan in 1986 added to Fuller’s theory and found that teachers actually experience four stages which would include student teaching; the first two stages are those that apply to the first year teachers (Ryan, 1986). Ryan’s stages are broken down as follows:

- Fantasy Stage (focus on imagination of classroom behavior problems)
- **Survival Stage** (focus on survival by getting through the day with enough activities)
- **Mastery Stage** (focus on experimenting with theories and teaching strategies)
- **Impact Stage** (focus on making impact on students’ lives)

Glickman, on the other hand, used a continuum to describe a teacher’s first year of teaching (Littleton & Littleton, 2009). This continuum includes the teacher dropout, the unfocused worker, the analytic observer, and the professional (Littleton & Littleton). Littleton and Littleton examined the work of Ryan and Glickman and defined phases that may be experienced by first year teachers. These stages are not based on a continuum, they are not cumulative, and any individual may experience characteristics from two or more of the phases at any time (Littleton & Littleton). These phases are as follows:

**Fantasy Phase:**
- Concepts of what a teacher is.
- Concepts of how a teacher is perceived by others
- How much influence a teacher has upon the lives of students.
- The rewards associated with teaching.

**Survival Phase:**
- Replaces the Fantasy Phase within the first two weeks of school.
- The sudden realization that pacing is a problem.
- The fantasy of an 8:30-3:30 day is replaced by the reality of a 7:00-5:00 day.

**Disenchantment Phase:**
- Begins with teacher’s first paycheck.
• Teachers see students as less caring than they did during the Fantasy Phase.
• Classroom behavior becomes problematic.
• The amount of time spent in this phase is critical to the attrition of teachers.

Competence Phase:
• The point of which novice teachers learn the “tricks of the trade.”
• The novice teachers learn balance between personal and professional life.
• Begins to understand that student attitudes are not a personal attack.

In a study conducted by Maloch et al. (2003), 101 preservice teachers were followed through their first year of teaching to identify and explore the understandings, beliefs, and decision making processes of first year teachers from three different teacher preparation programs. This study, which focused on teachers of reading, found contrary results to those who have determined that knowledge obtained for teacher education courses is not found to transfer to classroom teaching (Maloch et al.). Instead they found that teacher preparation programs do influence the beginning teacher’s understanding of what it means to be a teacher. The differences in the teachers were reported to surface in areas of instructional decisions, curriculum, their perception of being an instructional leader, and the degree of which they found and sought support from their schools (Maloch et al.).

Grossman and Thompson (2004) conducted a study to identify how the policies at the district level affected first year teachers’ instructional and curricular decisions and classroom practice. They found school districts to be very influential in shaping a teacher’s first year in the profession (Grossman & Thompson). Elements that influenced
the teachers’ curricular decisions and classroom practice were framed by the tasks assigned to teachers, the resources that were provided, the learning environment itself, and conversations that shaped the concerns and opportunities of teachers (Grossman & Thompson).

As new teachers enter the field and experience any of the phases or stages as presented in this review of literature, a question remains regarding the influence professional development has on their survival and their teaching. In a study conducted by Smith and Ingersoll (2004), induction, identified as support, guidance, and orientation during this first year, was found to have a positive effect on the retention of first year teachers.

The research revealed that 3 in 10 new teachers leave the field or move to a different school at the end of the first year of their teaching. In New Zealand teachers have reported leaving the teaching field due to curriculum and assessment reforms, increased accountability, and the issues surrounding an increase in diversity in schools (Patrick, 2003). Smith and Ingersoll (2004) also found that teachers who participated in an induction program were less likely to leave teaching at the end of their first year. Their research also identified several induction activities that helped in reducing teacher turnover. These activities included assigning a mentor from the same field, providing common planning time with other teachers in the same subject, and being part of a network of teachers (Smith & Ingersoll).
Summary of the Literature

The literature presented in this study is a result of various empirical and theoretical searches throughout multiple databases, journals, and books. These professional experiences range from professional continuing education programs involving medical and business professions to professional development experiences for traditional and online teachers. The professional development for traditional and online learning through available technologies has several models and initiatives that were presented for those who are interested in learning about or taking part in this type of professional experience.
CHAPTER III

METHODOLOGY

Philosophical Assumptions and Ideologies

According to Creswell (1998), all research contains philosophical assumptions. These philosophical assumptions are considered a basic set of beliefs, also known as paradigms. Creswell identified the assumptions that he found most pertinent to qualitative researchers.

- Ontological: Qualitative research has assumptions claiming that reality is subjective, multiple, and depends on the view of the participant.
- Epistemological: The researcher attempts to lessen the distance between oneself and the participants of the study.
- Axiological: Assuming that biases are present and values are openly discussed.
- Rhetorical: Written in literary style using personal voice and qualitative terms.
- Methodological: Inductive logic is used and the topic is studied within its context with the focus stemming from an emergent design.

These qualitative philosophies are consistent with the goal of this study, which is to examine the professional development goals of online teachers and to identify the instructional design preferences needed to support an effective online professional development.
Research Goals/Questions

To date, there is limited research examining the online professional development goals of K-12 online teachers or the instructional design preferences these online teachers have regarding online professional development. This study examined the current online teaching practices, the online teachers’ perceptions of their online teaching abilities and effectiveness, the needs and goals that emerged and their instructional design preferences for an online professional development experience. Bruner (1966) acknowledged that there are experiences or attitudes that somehow, whether intentionally or unintentionally, create views or interpretations of our world. This study sought to identify the teachers’ experience in a professional development course.

The research goals of this study were:

1. What are the online teachers’ goals of professional development?
2. What are the elements that should be included in the design of a professional development course for online teachers?

Methodological Rationale

As the research interests of this study revolved around the professional development goals of online teachers and the instructional design preferences of online teachers in a professional development course, identification of current online teacher practices, perceptions, experiences, and human understanding, the researcher found qualitative research as viable methodology. “Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem” (Creswell, 1998, p. 15). As a result of qualitative research, a holistic
picture can be built upon a variety of data collected from the natural setting (Creswell).
The six features common to all qualitative research, as explained by Eisner (1998), are as follows:

- **Field Focused:** Qualitative studies include a researcher that goes out into the environment where the study is taking place to allow for intimate observations of the people and objects as they interact in their natural settings.

- **Self as an Instrument:** Qualitative studies include the researchers’ meaning making through personal interpretations while providing personal insight into the study.

- **Interpretive Character:** Qualitative studies use interpretation to account for why something is taking place and which experiences and motives led to the actions of the participants.

- **The use of expressive language and voice in text:** Qualitative studies allow researchers to use language that demonstrates their attachment and empathy in a study. By adding expressive language and voice, researchers will be able to enhance human understanding through emotions and personal connections.

- **Attention to particulars:** Qualitative studies are representative to researchers who look for unique and aesthetic details within their studies.

- **Criteria for judging success:** Qualitative studies gather data from multiple data sources contributing to the coherence, insight, and instrumental utility.

The identification of the professional development experience through the eyes of K-12 online teachers would best be accomplished by Basic Interpretive Qualitative
research. Merriam (2002) defined a basic interpretive qualitative study as descriptive and comprehensive of other characteristics of qualitative research such as the researcher’s interest in human understanding, how participants make meanings from phenomenon, how the researcher acts as an instrument, how the strategy is inductive, and if the outcome is descriptive. In a basic interpretive study, data is “collected through interviews, observations, or document analysis” (Merriam, p. 25). This method of collecting three different types of data is considered triangulation.

Basic Interpretive Qualitative Research

Constructive

As one attempts to conduct qualitative research, they “seek to discover and understand a phenomenon, a process, the perspectives and world views of the people involved, or a combination of these” (Merriam, 2002, p. 6). Qualitative research allows one to explore his or her interests by developing an understanding of the phenomenon occurring between the teacher participants, the facilitator, and the distance while allowing the flexibility to see what the data will uncover in an open, meaningful, and constructive manner.

Through qualitative research, constructivism is foundational. The meaning for which one is searching is not discovered, but constructed (Merriam, 2002). This researcher chose to take a constructivist or interpretive approach to understand the perceptions and experiences that occurred through the natural setting of this course. Constructivism will not only allow the reader to have the ability to understand the construction of meaning through the eyes of the researcher, but this type of interpretive
research will also allow others to discover the meanings behind the experiences from the
eyes of the participants, as qualitative research is also phenomenological (Merriam).

**Phenomenology**

Phenomenology is instrumental to qualitative research as it is the meaning behind
every day experiences from the perspectives of the human participants (Merriam, 2002).
As qualitative research draws on phenomenology and symbolic interaction, qualitative
researchers conducting a study are looking for the interpretation of experiences, world
view constructions, and the meaning of the experiences, with the overall goal of
understanding how participants make sense of their lives and experiences (Merriam).

**Selected Method**

As this study conducted basic interpretive qualitative research with a case study
approach in the sense of a unit of analysis, the data was collected through methods of
interviews, an online classroom observation, and document analysis (Merriam, 2002).
“Methods are the tools that researchers use in order to gather data” (Hesse-Biber &
Leavy, 2006, p. 19). The following is the list of tools or techniques used to gather the
information for this particular study.

**Methods of Data Collection and Procedures**

**Interviews**

As an effort to form a relationship with the teacher participants and to create a
comfortable atmosphere where they would be able to openly discuss their distant learning
perceptions and experiences, responsive interviews were conducted twice during this
study. According to Rubin and Rubin (2005), responsive interviewing allows for depth
and is pragmatically designed for flexibility to meet the research needs. Responsive interviewing was used as a part of this study because it allows for flexibility in the questioning as the researcher may be led to different questions by the participants. This may help to develop an understanding of the experiences had during the professional development.

First Interview

The first responsive interview was conducted prior to the participants taking part in the online professional development course. The purpose of the initial interview was to obtain an understanding of the online teachers’ background experience and to identify the teachers’ current online teaching practices, the teachers’ perception of their online teaching abilities and effectiveness, and their previous professional development opportunities. One of the four interviews was conducted in a face-to-face environment. During this interview the conversation was recorded using a digital recorder.

As suggested by Rubin and Rubin, each participant was contacted through the telephone to establish a relationship and to schedule the first round of interviews. The participants were also contacted half way through the course and again during the last week of the course to continue building a trusting relationship. The interviews were recorded through Elluminate and also through a digital recorder. A copy of the interview protocol can be found in the appendix A.

As the teachers of this online school and the researcher reside in different locations across the state of Ohio, the participants had concerns regarding child care, time away from students, and travel expenses. As a result, the remaining interviews were
conducted through Elluminate, a software tool that can be used as a means of communication between people. For this study, the audio portion of Elluminate was used to communicate with the participants. The audio tool enabled the researcher and participants to speak to each other through their microphones much like they would through a telephone. Although telephone interviews are not the preferred way to conduct responsive interviews, they are acceptable when travel, time and expenses are an issue (Rubin & Rubin, 2005).

*Second Interview*

After the participants completed the course, each of them were called to discuss a time and date for the upcoming interview. During this phone call, the participants were informed that their online classrooms, the assignments from the *Introduction to Online Learning* course that they had submitted, and any discussion board postings that were relevant to the topics of the interview would be reviewed.

Just as with the first round of interviews, these interviews were also conducted through face-to-face meetings with the participant (1) who was willing and able to meet the researcher in person, and through the phone for those (3) who could not. A speakerphone was used for the interviews that were not face-to-face to enable the conversation to be recorded. Two separate recorders were used to ensure that technology would not present a problem. One recorder was digital and the other recorder used audio cassette tapes. Questions varied slightly as they were tailored to the participants’ prior interview responses, information obtained from the synchronous observation, information obtained from the online classroom observations, and information obtained from the class
assignments and discussion board posts. A copy of the interview protocol can be found in Appendix B.

**Observation**

An observation occurred due to the delivery of a synchronous professional development session that was facilitated by the facilitator of the course (the facilitator of the course was not the researcher). She organized this session around the themes from the Introduction to Online Learning course and conducted it through Elluminate. To access Elluminate, the teacher participants and the facilitator were provided with a URL address to enter the session. To protect the identity of the participants, the researcher created the session and emailed it to each member of the group. The group members then signed in to the session using their pseudonyms. Through Elluminate, the teachers and the facilitator were able to speak using audio software. They had microphones that they used when speaking and had speakers on their computers to hear each other. The facilitator asked the group the following questions and allowed them time to ask and respond to each other’s input. These questions were taken from the various assignments that were part of the course.

1. Please share your lesson plans from assignment four with the group.

2. What did you think about the checklist from assignment two? What did you find you are most in need of?

3. How do you see teaching presence now? What should it be?

4. Do you teach to the test or teach to what the kids should know?
Through the technologies available to this group, they were able to use the chat board when someone was speaking. The chat board is a little box located in the lower left-hand corner of the screen. When the facilitator or a student was speaking, any member of this session could type in a response that corresponds to what is being discussed through audio. For example, as one of the participants was sharing her lesson plan, other members of the class were able to type messages such as: “Great idea,” or “How did you implement that in your online classroom?” This option allows for multiple people to communicate at the same time without interrupting each other.

Another tool that was used during this synchronous session was the interactive whiteboard. The whiteboard is a large white box with a toolbar that runs down the left-hand side. By using the whiteboard tools, the teacher participants were able to show their lesson plans to the facilitator and the group members visually. This feature allows for the sharing of presentations and has an interactive component where members of the class can write on the presentation. This is especially helpful when images, graphs, or charts are needed to emphasize a specific meaning that one is attempting to convey.

By designing and observing the synchronous discussion, a sense of the experience through the participant discussions that were missing from the asynchronous components of the course was obtained. The teacher participants were observed and recorded in a group setting where they discussed the content of the course along with concerns, questions, and applications that resulted from their participation in this course.
Artifact Collection

Documents such as course assignments, discussion board transcripts, and online teaching environments were collected and analyzed to provide a more robust understanding of the online teachers’ professional development goals, the experiences had during the online professional development course and an identification of the instructional design elements that would support an effective online professional development course. The teachers employed by the online school prepared their lessons a minimum of one semester in advance to allow for students to work ahead if they chose. Therefore, the teacher participants already created their virtual classrooms and lessons for the current semester. The lessons were posted inside the virtual classrooms and were reviewed to establish an understanding of the current teaching environment that each teacher has established for his or her students.

Teachers’ Lessons

The contents and structure of the teachers’ lessons were examined. Two lessons from the current semester were chosen to develop an understanding of the elements of the lessons assigned to their students. These elements included personalization techniques, strategies, organization, grading rubrics, accommodations, and organization of online course instruction and delivery. This data was also used during the post interviews to give the teacher participants an opportunity to discuss what they learned from the course and how the course influenced the thinking of their current lessons.
Discussion Board

Through IQity, teacher participants had access to a discussion board that provided them with an environment to reflect upon discussion topics and create relevant responses. The discussion board had a different topic to correspond with the five weeks of the professional development course. Through the discussion board, the participants were able to interact with each other and with the facilitator by creating posts, or comments, that corresponded with the topic. Within the discussion board was a forum. The forum was titled “Introduction to Online Learning,” which was the name of the course that the teacher participants enrolled in to participate in this study. When the teacher participants clicked on the forum they were immediately directed to a list of threads. Threads are topics that are organized by themes. For this study, the discussion board threads had beginning and end dates to remind participants which thread they should be commenting on at that time. As each thread expired, the discussion board comments were downloaded, examined, and compared to the other data sets collected through interviews and observations.

Course Assignments

The assignments submitted by the participants were also reviewed. There were 10 assignments required by the course facilitator and all were obtainable for data analysis. The assignments were collected to provide an understanding of how the participants were implementing or planning to implement the strategies and topics presented in the online professional development course.
Journal

A detailed research journal was also kept, which included all of the events related to this study as they occurred. After each interview, observation, or collection of data, journal entries regarding all findings that occurred during each stage of the research process were created as an effort to organize that data as it was collected.

Research Participants

The participants of this study were online teachers employed by a K-12 virtual charter school. These online teachers held provisional or professional licenses issued by the state of Ohio and had not been required to enroll in online teaching courses as part of their pre-service teacher education programs. These teachers had been given the opportunity to engage in online professional development sessions designed for online teachers to enhance their skills and knowledge of online teaching and learning. Since the researcher was employed by the same district as the teacher participants, the researcher had complete access to all of the data.

There were four participants in this study. All 20 of the entry year teachers were invited to participate through email. The email included a description of the study and the consent forms. Four of the entry year teachers responded and accepted the invitation to participate and were all included in the research study. Creswell (1998) offers suggestions for conducting case study research. He suggests that researchers select an appropriate number of cases to study. If one is selected, it is often difficult to gather enough data for the overall analysis; however, too many cases could lead to a lack of depth.
All participants were interviewed regarding their current practices and perceptions of their effectiveness in distance teaching, their prior professional development experiences, and their need for a better understanding of the online teaching and learning phenomenon. An observation of the live session also occurred as an effort to identify the experiences had during the online professional development session. Documents such as written communications, discussion boards, and course assignments were collected and analyzed, along with online classrooms and lessons to provide a sense of the teachers’ thoughts and actions regarding online teaching. The following are the online teachers that participated in this study:

Rose

Rose was a 27-year-old female, married with no children. She was also a first year art teacher with students from 9th-12th grade. The age of Rose’s students ranged between 14 and 21. She earned her undergraduate degree in art education at a university in Ohio and reported that student teaching was the only teaching experience she had prior to her current position. In addition to art education, Rose obtained her graduate degree in counseling, at the same university in Ohio. She began working for an online school in 2007 as a school counselor, and in 2008, she decided to become the art teacher for the same online school.

Rose did not have any exposure to online teaching or online courses prior to her graduate program in counseling during which she enrolled in two online courses. Throughout Rose’s teacher preparation program, she never discussed any type of online teaching in any of her coursework. Her only exposure to teaching with technology came
from her graduate assistantship, where her supervisor exposed her to working with
different technologies as part of her employment. This experience made Rose curious
about teaching with technology, which prompted her to apply for the position as an
online art teacher.

*Nancy*

Nancy was a 36-year-old female who began her professional life as a plastics
engineer of eight years. She obtained her undergraduate degree in chemical engineering
at a university in Northeastern Ohio. Nancy was married with three children, which led to
her second career as a stay at home mom for six years. Nancy then decided to rejoin the
workforce and worked as a math tutor for two years. Nancy completed 30 graduate hours
and began teaching online during the 2008-2009 school year with little teaching
experience to date. Nancy also completed her student teaching and successfully passed
the Praxis I and Praxis II examinations and was preparing for her Praxis III examination
that was scheduled for spring of 2009. Nancy was a 10th grade Integrated Math II teacher
with students ranging in ages from 16 to 20.

*Bill*

Bill was a 23-year-old male. He was also a first year intervention specialist in an
online school. Bill was assigned to teach English IIIBa, which included 9-12 graders who
had not passed the reading and/or writing portion of the Ohio Graduation Test (OGT).
Similar to all of the participants in this study, this was Bill’s first year in the teaching
profession. Bill attended a university in Northeast Ohio for his undergraduate degree in
education and was currently working on obtaining a graduate degree online. Due to his
experience from his graduate program as a student in an online environment, Bill had a slight online teaching advantage over the other participants in this study. Through his graduate program, he was utilizing tools that were initially foreign to many beginning online teachers, such as posting assignments in a learning management system and participating in online discussions through a discussion board.

**Jackie**

Jackie was a 37-year-old female. She was married with no children and had been a play writer for the past 15 years. Jackie’s first play was produced in February of 2009. She was a first year online reading intervention teacher working with high school kids enrolled in an 11th grade government course. Her students ranged in ages from 15 to 22 years. Jackie began teaching online during the 2008-2009 school year. She attended an undergraduate teaching program in Pennsylvania, where she also completed her student teaching experience. Jackie also completed some graduate work at a graduate school also located in Pennsylvania. Prior to her teaching experience, Jackie spent several years in the banking and finance industry. She then substituted in six different school districts when she moved to Ohio. As this was Jackie’s full time permanent teaching position, she was considered an entry year teacher, and like all of the participants, she was preparing for her Praxis III examination.

**Context of the Study**

**Course Structure**

The structure of this course was designed as an asynchronous course, meaning that the participants were able to work on their lessons from different locations during
different times. The content of the course was placed inside of the online classroom created for professional development, which is the virtual location used by the online school for online professional development. The learning management system used for these professional development opportunities is IQity. The IQity learning management system is the LMS that the teacher participants use to teach their own students, which enabled them to engage in critical reflection.

To critically reflect upon one’s experience, Brookfield (1995) suggested putting the learner in the “role of the other” (p. 29). Brookfield found that by encouraging educators to assume the role of the student, they will be able to better identify their students’ experiences. This practice enables the educators to become more connected to their students’ needs and frustrations, which in turn will assist them in teaching more effectively.

**Course Design**

The asynchronous lessons were developed as 10 modules. These lessons were posted prior to the start of the course allowing the teacher participants the option of working at their own pace. There was also a suggested guideline pacing chart to assist the teachers in organizing their time on task. Through IQity, the teacher participants were able to individually move through the lessons of the course and complete the corresponding assessments. The assessments were submitted to the facilitator through a dropbox in IQity. The IQity dropbox was designed as a method of assisting students in turning in their assignments to their teachers.
Through the dropbox, students are able to attach assignments by uploading them from their computers. The teachers have access to the dropbox, which enables them to assess and provide individual feedback to their students. This option allows teachers to grade and exchange ideas and comments with their students on individual assignments. Each lesson of this course had a dropbox for the teachers to submit their assignments to the facilitator for feedback.

The topics of the modules presented are as follows:

- Lesson 1: Necessary skills of successful online teachers.
- Lesson 2: Assessment of online teachers’ technical skills.
- Lesson 4: Online Communication (synchronous and asynchronous communication).
- Lesson 5: Legal, Ethical, and Safety Issues.
- Lesson 6: Searching the Internet for media resources.
- Lesson 7: Valid and Reliable Assessments.
- Lesson 8: Meeting Diverse Student Needs.
- Lesson 9: Metacognition.
- Lesson 10: Time Management.

Discussion Board

The IQity discussion board was created as an effort to promote community building in online classrooms. Discussion boards are asynchronous learning tools that
allow students and the instructor to interact with each other from different locations
during different times. For this learning experience, the teacher participants were able to
utilize the discussion boards to engage in conversations with their peers. According to
Brookfield (1995),

Our colleagues serve as critical mirrors reflecting back to us images of our actions
that often take us by surprise. As they describe their own experiences dealing with
the same crises and dilemmas we face, we are able to check, reframe, and broaden
our own theories of practice. (p. 35)

The discussion boards from this particular course were created to allow for critical
conversations among the teacher participants who were also colleagues. They consisted
of the following threads (topics within a discussion board).

1. What are the characteristics of successful online teachers? Which of those
   characteristics do you see in your own teaching?

2. How do you initiate conversations with students? How do you ensure
   academic honesty? How do you know you are using your resources
effectively? Please discuss any or all of the above components of this week's
discussion.

3. How do you identify and address the needs of diverse learners in your
   classroom and how do you promote metacognition in your classroom? Will
   you handle these areas differently after reading lessons eight and nine?

4. How do you build a community of practice in your classroom? When did you
   begin working on a community of practice?
5. As this course was premised on the National Standards for Quality Online Teaching by iNACOL, please discuss the standards. Do you agree that these should be the standards of quality? Do you have a standard that is not currently a part of this set that you feel should be? Please explain your answer. Also, do you feel that any of the standards listed should not be an online teaching quality standard? Please explain your answer.

It was suggested that the teacher participants post a minimum of two responses per thread; however, it was not required. All comments posted in the discussion board were obtained for analysis.

*Synchronous Lesson*

A synchronous session also was offered to the participants and conducted by the facilitator of the course through Elluminate. The researcher attended this session as an observer as this session was designed to allow the participants to share ideas and interact with one another. The goal of this session was to offer the participants an opportunity to experience community building as students within their own course, and to develop an understanding of the experiences had by their own students.

*iNACOL Standards*

The modules were heavily based upon the North American Council for Online Learning (iNACOL) online teaching standards. Each of the lessons had coordinating standards that could be cross referenced by the teacher participants. There were 13 organizing categories for these standards:
1. The teacher meets the professional teaching standards established by a state-licensing agency or the teacher has academic credentials in the field which he or she is teaching.

2. The teacher has the prerequisite technology skills to teach online.

3. The teacher plans, designs, and incorporates strategies to encourage active learning, interaction, participation, and collaboration in the online environment.

4. The teacher provides online leadership in a manner that promotes student success through regular feedback, prompt response, and clear expectations.

5. The teacher models, guides, and encourages legal, ethical, safe, and healthy behavior related to technology use.

6. The teacher has experienced online learning from the perspective of a student.

7. The teacher understands and is responsive to students with special needs in the online classroom.

8. The teacher demonstrates competencies in creating and implementing assessments in online environments in ways that assure validity and reliability of instruments and procedures.

9. The teacher develops and delivers assessments, projects, and assignments that meet standards-based learning goals and assesses learning progress by measuring students’ achievement of learning goals.
10. The teacher demonstrates competencies in using data and findings from assessments and other data sources to modify instructional methods and content to guide student learning.

11. The teacher demonstrates frequent and effective strategies that enable both teacher and students to complete self- and pre-assessments.

12. The teacher collaborates with colleagues.

13. The teacher arranges media and content to help students and teachers transfer knowledge most effectively in the online environment.

These standards are broken down further into individual and specific guidelines designed as a checklist for online educators to understand their own competency within these individual components.

Data Analysis

As there was an attempt to achieve triangulation, multiple methods of data were collected and analyzed. A preliminary analysis was conducted after the responsive interviews, the asynchronous online classroom observation, and collection of document artifacts. Prior to each method of data collection, journal entries of pertinent facts were completed to identify the patterns or themes that emerged from each stage of data collection. The constant comparative method was used as themes emerged from the data.

Transcribing of Data

Responsive interviews along with recordings from the synchronous sessions were transcribed verbatim for data analysis. This method of transcription is supported by Hesse-Biber and Leavy (2006):
It also ensures that early on, the researcher is aware of his or her own impact on the data gathering process and he or she has an opportunity to connect with this data in a grounded manner that provides for the possibility of enhancing the trustworthiness and validity of his or her data gathering techniques. (p. 347)

Half of the interviews were sent to a research center for transcription and the other interviews along with the synchronous session were transcribed word by word by the researcher. As suggested by Hesse-Biber and Leavy (2006), the data was organized by date, time, and place to assist with organization for analysis. A folder was created for each participant that included all interview transcripts and notes, coursework, discussion board postings, and notes from the online classroom observation as a technique to remain organized.

Coding

According to Hesse-Biber and Leavy (2006), coding data can begin as soon as it is collected. “Analysis usually begins with looking for descriptive codes within one’s data” (p. 351). Through the process of coding, descriptive codes were assigned to the data that would potentially generate key concepts or categories (Hesse-Biber & Leavy). Hesse-Biber and Leavy suggested that the goal of the researcher is to generate analytical concepts. The researcher can perform any of the following when coding data: assigning words to segments of text, condensing data into analyzable segments, sorting coded text segments that are similar, comparing and contrasting coded segments, looking for patterns. For this research, data was transcribed and sorted into analyzable segments. The
coded segments from each participant were compared and contrasted during data analysis as described below through focused coding.

Focused coding includes the modification of code categories to build and clarify concepts (Hesse-Biber & Leavy, 2006). The data gathered from the interviews and observations began with descriptive coding. It was then analyzed line by line with the addition of general concepts next to each of the participant’s responses. Next, after the first list of themes was generated, numbers were placed next to each line of data to begin the process of organizing the data into the possible themes and to find the areas that seemed to generate a significant amount of data. Once the themes that best answered the research questions were identified (What are the professional development goals of online teachers and which elements should be included in the design of an online professional development course), the data was revisited to identify the themes that emerged to answer the research questions.

**Memos**

Descriptive and analytical memos were created as an effort to interpret data that would help with the organization of data and thoughts (Hesse-Biber & Leavy, 2006), which were referenced during the interpretation of data. Given that there were several sources of data for this particular study, memos helped with the organization of thoughts that were later used for reflection. These memos were written during data collection and analysis.
Development of Themes

The constant comparative method examines units of data considered meaningful by the researcher (Merriam, 2002). These units are then compared to each other for the generation of tentative categories (Merriam). The constant comparative method also allows the researcher to compare diverse groups to reveal the similarities and differences that will strengthen and support the emergence of themes and categories (Merriam). Based on information obtained from Merriam’s (2002) work with the constant comparative method, data from this study was compared for the purpose of generating themes and categories. This research study began on November 17th, 2008, the date of which the invitations for online teachers to participate in this research study were dispersed. The responses were immediately returned, and artifacts were collected from the online classrooms. The author of the course was also contacted for the purpose of providing background information regarding the context of the course, and each of the participants that accepted the invitation was personally contacted through phone. A significant amount of time on the phone transpired between the researcher and each of the participants as an attempt to establish a relationship.

The first round of interviews was conducted on November 19, 2008. As the interviews were taking place, field notes were taken and organized through journal entries, which contributed to a timeline of the research study. Immediately, the interview data was compared to the course content and all of the course assignments completed by each participant. This online professional development course was led by a facilitator and the course grades were not affiliated with any university which made the due dates
suggested and not mandatory. Due to the flexibility of this course, the participants were able to submit their assignments as time permitted. Their assignments were accessed as they were turned in and compared to the other data sources that were obtained for each participant. Once the course ended and the participants submitted their assignments, the second interview protocol was designed using all of the data that had been collected. Once the second interview protocol was created, the second round of interviews began. These interviews began on December 23, 2008, and ended on January 9, 2009.

Next, the three data sources were compared with the discussion board postings from each of the participants. As the data sources were compared, themes began to emerge. Once the themes were identified, all of the data sets were revisited for each of the participants. The data was then coded through analysis. The data sets were compared once they were coded from each of the participants to identify their commonalities and differences.

A list that included all of the possible themes was generated. Each of the interview transcripts were then cross referenced with the original list of themes. Those themes that were not supported by the majority of the participants or through various data sources were eliminated. The common themes that emerged from the data were (a) student engagement, (b) ability to use technology, (c) course content, and (d) presentation of content. These themes are presented in Table 2.
Table 2

Common Themes that Emerged from the Data

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Theme</th>
<th>Theme</th>
</tr>
</thead>
</table>
| Research Question 1:  
*What are the online teachers’ goals of professional development?* | Student engagement             | Ability to use technology      |
| Research Question 2:  
*What are the elements that should be included in the design of a professional development course for online teachers?* | Course content                | Presentation of content        |

The data collected for each of the themes were analyzed and interpreted based on each of the teacher participants’ references made to student engagement, their ability to use technology, course content and presentation of content. First, this data was analyzed separately for each person. For example, all of the evidence pertaining to student engagement was compiled, organized, presented and interpreted. This was then done for each of the remaining participants for each of the themes, which led to the findings of the study.

**Trustworthiness**

According to Lincoln and Guba (1985), trustworthiness can be achieved through credibility, transferability, dependability, and confirmability.

**Credibility**

Credibility can be achieved through “prolonged engagement and persistent observation, triangulation, peer debriefing, negative case analysis, and member checking”
(Lincoln & Guba, 1985, p. 219). In this particular study, credibility was achieved through triangulation and peer debriefing.

**Triangulation**

Triangulation is a well-known way to establish internal validity in research studies (Merriam, 2002). Triangulation, in the context of this research, was achieved through the comparison of the information collected from each of the following data sources: interviews, online classroom observations, and documents such as discussion board transcripts, course assignments completed by the participants, and lessons created by the participants to ensure that the information obtained was consistent across all three methods of data collection.

**Peer Debriefing**

“Peer debriefing involves a researcher meeting with a trusted colleague who is not directly involved with the research but who has a general understanding of the study” (Crowe, personal communication, January 25, 2009). In the context of this research study, peer debriefing was conducted to provide trustworthiness to the readers. The researcher met with a trusted colleague who was experiencing the same dissertation process and shared two of the three committee members. The researcher met with her colleague twice per month after the data was collected to help the researcher explain her thought processes, reflect upon her methodology, and explain her coding procedures and arrival of themes in preparation for the necessary articulation skills that accompany this process when presented to others.
Transferability

Transferability is achieved through thick description (Lincoln & Guba, 1985). This technique to achieve transferability “involves providing an adequate database, that is, enough description and information that readers will be able to determine how closely their situations match, and thus whether findings can be transferred” (Merriam, 2002, p. 29). To achieve transferability, this research attempted to provide as many details as possible to enable other readers to follow the research and understand the context of the situation of these particular participants. This effort was also to allow readers to decide if their context would be appropriate for utilizing these data findings for their individual purposes. As data was collected from teacher participants, and the findings were found to be relevant to other online teachers, one may consider the data of this study as an appropriate alternative to their traditional professional development context and attempt to apply this type of learning in their own situation.

Dependability and Confirmability

Dependability and confirmability can be achieved through the creation of an audit trail (Lincoln & Guba, 1985). Based on the Halpern audit trail, the following records are suggested by Lincoln and Guba.

1. Raw Data: This study does provide details concerning raw data. For this, raw data was based on interview transcripts, synchronous classroom transcripts, discussion board postings, and online classroom observation records.

2. Field Notes: Field notes included categories, findings, and reports based on data such as connections to literature.
3. Process Notes: Process notes include methodological notes concerning the procedures and design of this research along with the rationale and any notes relating to credibility, dependability, and confirmability.

Limitations of Study

The limitations of this study are to provide information to the readers regarding areas that could be of concern.

The first limitation of this research is that the research was based on one online professional development course. This course was designed to align to one organization’s suggested online teaching standards and is not representative of all of the online teaching needs and recommendations. Those who read this study should not assume that the iNACOL standards will meet all of their online needs and should attempt to identify the needs that they have identified within their own online district to ensure online teachers’ professional development needs are met.

The second limitation of this study concerns the several other areas of professional development that the online teachers received in addition to the online course that they participated in during this study. The teacher participants of this study were part of a structured mentoring program. They received face-to-face professional development several times throughout the school year, were part of a teaching team that shared content and collaborated in regards to elements of designing their online classrooms and participated in team meetings with their content or grade level teams. These teachers also received regular feedback from informal evaluations performed by their principals as an effort to provide them with feedback in regards to their teaching.
Due to all of the efforts provided to the teacher participants, it is difficult to determine exactly which of the elements from the online professional development course influenced the teachers’ online teaching as opposed to the external professional development experiences being had simultaneously by these teacher participants.

Researcher Background

The researcher is a PhD candidate with an extensive background in online teaching and learning. She began teaching for an online school district located in the state of Ohio in the year 2001, and has filled many roles including teacher, lead teacher, leadership trainee and Director of Curricular Technology. She also worked as a fellow with the North American Council for Online Learning (iNACOL). Under the direction of iNACOL, she contributed to the National Standards for Online Courses and the National Standard for Online Teaching, and is currently a member of the iNACOL Research Committee. The researcher began and coordinated the Entry Year Teacher Program at an online school district in Ohio from 2003-2008, where she conducted the organization and mentoring of all Praxis III candidates employed by the online school. The researcher continues to work in the realm of professional development with over 500 online teachers and administrators.

Summary

The purpose of this qualitative research study was to provide in-depth information regarding the professional development needs of online teachers and how online professional development influences online teachers. This study was an attempt to identify how the teacher participants perceived their online teaching abilities, how they
explained their professional development needs, and how they were influenced by a professional development course. The goal of this study was to provide insight into the realm of online professional development for online educators. Readers of this research will be able to find trustworthy information due to the triangulation of data and peer debriefing that was incorporated to ensure the integrity of this study. As the research did pertain to this particular case, others have the freedom to incorporate the components into their school districts as they so determine. It is desired that the findings from this study lead to a better understanding of the needs of online educators and influence online professional development has on online teaching. It is also desired that more opportunities for teachers to engage in effective online professional development courses that will contribute to the quality of online teaching and learning.
CHAPTER IV
FINDINGS OF THE STUDY

During this research, four first year online teachers were studied to identify their professional development needs and goals in online teaching and learning. Each of the teacher participants was also part of the Entry Year Teacher Program and was preparing for his or her Praxis III examinations. In addition to the professional development course, each of the beginning teachers was also provided a mentor teacher and took part in the Entry Year Teacher Mentoring. The four teacher participants were interviewed twice during this research study and documents and artifacts were examined from their online classrooms, their course assignments, and their discussion board contributions. The two questions that informed this research were:

1. What are the online teachers’ goals of professional development?
2. What are the elements that should be included in the design of a professional development course for online teachers?

This chapter presents the findings from the following teacher participants: Rose, the online art teacher and counselor; Nancy, the non-traditional online math teacher; Bill, the reading intervention teacher who considered himself a face-to-face teacher, teaching online; and Jackie, the reading intervention teacher whose philosophy was: “Why bother learning something if you don’t use it?”

This chapter’s organization is structured accordingly with the two research questions. The research questions are presented first, as they were used to guide the data
collection. The themes that emerged from the data were relevant to the teacher participants as they continuously resurfaced throughout the interviews, the observation, and/or the analysis of documents.

The evidence to support the findings was unique to the individual participants; however, in the summary of each section, the findings from participants were cross referenced to demonstrate their commonalities and differences. The data presented from the two research questions was then interpreted and analyzed to establish the findings in Chapter V of this study. Table 3 is a summary of findings based on the analysis of each of the individual participants.

Table 3

*Summary of Findings*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Question 1</th>
<th>Question 2</th>
<th>Supplemental Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student engagement as primary concern in online teaching</td>
<td>Wanted to increase knowledge and ability in using technology</td>
<td>Course content should be relevant to teachers' needs</td>
</tr>
<tr>
<td>Rose</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Nancy</td>
<td>X</td>
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<tr>
<td>Bill</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Jackie</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
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</table>
What is represented in Table 3 demonstrates how the results relate to the research questions in this research study. The first row of the table indicates the research questions that were addressed. The second row displays the correlating findings that emerged from the analysis of data. Rows 3-6 showed that each participant’s connection to the theme through the insertion of an “X.” The “X” that was placed inside the box demonstrates that there was evidence from the participant to support the finding. The findings from the data indicated that Rose, Nancy, Bill and Jackie all found student engagement as their primary concern in online teaching and had the goal of receiving assistance that would help them increase their student engagement. They also were similar in that they all wanted to increase their knowledge and ability to use technology. In addition to having consistent professional development goals, all of the teacher participants preferred to have their professional development course content relevant to their online teaching needs, and wanted it to be designed by incorporating their specific learning style needs and preferences. Based on the different learning styles that online teachers possessed, it was not possible to choose one learning style, therefore it is suggested in Chapter V that professional development content be delivered through a variety of media and presentation techniques. The last column in Table 3 emerged from supplemental findings. This column included data that were not related to the research questions, however, were found significant to all of the participants. The participants all mentioned that they first turn to peers when in need of professional assistance. These data were especially relevant to online teachers, as they are physically separated from their peers; this is explained in depth at the end of this chapter under *Supplemental Findings*. 
As mentioned earlier, data from each of the participants were analyzed separately and then together to develop each of the findings. This data is presented throughout the next several sections to provide examples of how the findings were derived from this group of participants’ data.

What are the Online Teachers’ Goals of Professional Development?

The four teacher participants in this study all expressed specific professional development goals based on their experience as online teachers. The two strongest themes that emerged from the data related to increasing student engagement and knowledge and ability in using technology. The themes emerged through the analysis of the participants’ interview questions, an exploration of their online teaching environments and an examination of their required course assignments. The goal to increase student engagement is discussed first, followed by a discussion regarding the online teachers’ desire to increase their knowledge and abilities in using technology.

**Increasing Student Engagement**

Through the collection, analysis, and synthesis of data, the primary professional development goal of the online teachers surfaced as the desire to increase student engagement. All of the teacher participants expressed the goal to increase student engagement among their students and identified the techniques that they have been using in their online classroom. As the participants engaged in the online professional development course, it was apparent that they were looking specifically for answers that would help them to increase student engagement. All of the participants found strategies that they planned to implement, however, for organizational purposes, those strategies
will be discussed later in the chapter when the second question: *What are the elements that should be included in the design of a professional development course for online teachers?* is addressed.

In this section, each of the participants’ ideas is individually presented to demonstrate the significance behind their professional development goals. This section concludes with a summary that integrates data based on all of the participants. The data presented provides exemplary examples of how the online teacher participants had the goal of receiving online professional development that will assist them in increasing student engagement.

The data showed that each of the participants focus on student engagement looked different within their teaching practices. Rose’s focus on student engagement presented itself through her concern for her students’ learning opportunities; Nancy’s through her desire to create a more engaging learning environment; Bill’s through his interest to promote communication; and Jackie’s through her ambition to use new technologies to promote interaction.

*Rose*

Rose was a first year art teacher. Her goal to increase student engagement came from her (a) concerns of student engagement affecting her students’ learning opportunities, and (b) attempts to promote student engagement in her online classroom. The data presented indicated that Rose’s primary professional development goal was to receive assistance in increasing student engagement in her classroom.
Student engagement concerns. Rose expressed that student engagement was the one barrier that would deny her students the opportunities to learn in an online environment as opposed to a face-to-face setting. In the following excerpt, Rose explains how student engagement promotes learning in her classroom.

It is just that getting over that engaging hump. I do have students engaged and they are turning in their art work and they are reading their lessons and they are calling for their live Elluminate lessons and they are participating. I think those kids are getting just as much teaching and understanding as they would in a regular classroom. It’s just making sure that they participate in the online meetings and things like that. (RI-1, Rose, 11/21/2008)

In addition to Rose’s belief that student engagement can be a barrier to online learning, student engagement resurfaced as Rose expressed her view of effective teaching. She described effective teaching as a way to keep her students engaged and interested in what they are learning.

For an effective teacher, you really have to find ways to keep the kids engaged and interested in what they are learning. I really think that they have to find something that is interesting to them if anything is going to stick with them. (RI-1, Rose, 11/21/2008)

Rose’s explanation of effective teaching provided evidence that she was primarily concerned with engaging her online students. The strategies that she used to promote student engagement are democratic in that she allowed her students to make guided choices in their assignments. Rose also personally called each of her 323 students at least
twice per month to build rapport and establish her teaching presence. This phone calling strategy may have worked as she reported her student engagement as reaching 70% at times during her semester. Rose made the effort to establish relationships as a strategy to promote student engagement in her online classroom. She felt that if the students were aware that she cared about them, they would in-turn be more willing to participate in her online classroom.

_Student engagement in Rose’s online classroom._ To support the data that demonstrates Rose’s efforts and emphasis on increasing student engagement, she also created sections inside of her online classroom spotlighting those students that submitted work to her. This effort can be time consuming and complex as Rose was an art teacher. She had to manipulate drawings, which required technical computing skills to display these projects in a manner that made them appear as though they were on display. Rose found the time to enhance her online classroom for the purpose of maintaining the engagement of those students who were already engaged and the hopes of increasing student engagement for those who were not.

One of the things I used to help keep the students engaged is under each week I’ll show or have a page of student examples so if students turn in work, I’ll post it in the classroom so students can see the artwork that their classmates are making.

(RI-1, Rose, 11/21/2008)

In addition to trying to lure her students to engage through providing choices in lessons, personal rapport building and pride by displaying their art work; Rose attempted to become more focused on her online synchronous tools that she thought would be able to
assist her in engaging her students. In the following excerpt, Rose explained that she also wanted her students to increase their engagement in her Elluminate sessions. She was willing to devote her time to learn more about the software as another means to increase her student engagement. Rose explained her desire to work more with Elluminate through the following excerpt:

> Just to make sure that I put in things that keep them [the students] engaged and I’m not just showing up the whole time. This is my first semester so I’m learning what works and what really didn’t work and hopefully it will keep getting better. [I would also like] to find different ways to make sure the students are following along or that they are interested. (RI-1, Rose, 11/21/2008)

In addition to finding data to support Rose’s desire to increase student engagement through interviews, it was also evident from her work in the online professional development course. Through one of her assignments, Rose was asked to read the results of a compilation of effective teaching characteristics that were established by online teachers. Rose’s reflection included providing quick feedback to her students as a way to keep them motivated and to remain engaged. Rose also mentioned that her students had been more willing to engage with her through the Message Center than through the phone. Because of her finding, she consistently checked her Message Center inbox throughout the day to keep those kids engaged that she currently had interacting with her. The data showed that Rose’s primary professional development goal was to learn new ways in which she would be able to reach and engage those students who were not currently engaging with her.
Nancy was a first year math teacher. She worked with students who failed the 10th grade at least once. Nancy’s professional development goal to increase student engagement was evident through her desire to (a) create a more engaging learning environment, and (b) connect with her online students.

Student engagement as a motive to create a more interactive learning environment. On the surface, Nancy’s data looked a little different from the other participants. Nancy typically stated a goal that she would have liked to achieve through professional development as something other than increasing student engagement. However, in many instances, Nancy’s explanations of her professional development goals included student engagement as the motivating factor. For example, as Nancy explained her primary professional development goal as creating a more interactive learning environment, she included student engagement as the reason behind her aspiration. In the following excerpt, Nancy explained how she would like to improve as an online teacher.

I guess for myself I would think actually being able to put more manipulatives into my classroom, being able to put some fun things in there so some students who are reluctant to get in or think that math is dry and it’s a hard subject. At least maybe if there was something that could drive them to get them in there.

Something a little more fun. (NI-1, Nancy, 11/21/2008)

When Nancy made reference to “get them in there,” she was referring to motivating and engaging her online students. Her desire to add manipulatives was her way to motivate her students and entice them to engage with the content.
Connecting to Nancy’s online students. As with Rose, Nancy was looking for ways to make connections with her students.

I have looked at other teachers’ classrooms, and I see more personal touches that I would like to maybe connect with students a little more. Maybe recognizing students’ birthdays and just recognizing students’ achievement somewhere within my classroom. (NI-1, Nancy, 11/21/2008)

From her experiences, Nancy realized that many of her students were not intrinsically motivated to engage in her coursework and that she must find creative ways to promote student engagement in an online environment. When asked about technology, Nancy revisited student engagement as she mentioned her goal to communicate effectively online. In the next excerpt, Nancy explained her view of how communication relates to student engagement:

I think a lot of technology as far as building a classroom would be helpful, but also maybe information on how a teacher comes across online, what is effective as far as reaching out to students and getting them to engage. I think the problem with some students is they don’t engage or they might feel like they’re not important, or I’ve had one student saying thank you for treating me not like a number and like a person. So I think maybe some strategies to make students feel that they are recognized. (NI-1, Nancy, 11/21/2008)

Nancy’s response was another indication that her primary concern as an online teacher was to find ways to increase student engagement in her classroom.
Although Nancy did not refer to student engagement as her primary concern, she indicated it as her motive to (a) create a more engaging learning environment, and (b) to connect with her online students. Considering the significance behind the elements that were driven by Nancy’s desire to increase student engagement, increasing student engagement emerged as Nancy’s primary professional development goal.

*Bill*

Bill was a first year intervention specialist. His primary professional development goal to increase student engagement emerged from (a) his interest in promoting communication, and (b) the connection he identified between classroom management and student engagement.

*Communication and student engagement.* When asked what is most important to online teachers, Bill began by discussing communication, but much like Nancy, communication was the vehicle to increasing student interest and student engagement.

I think communication and skills to improve your communication, ways you can use technology to communicate information . . . I think somebody might benefit extremely from learning to draw students in, making them interested [and] creating engagement. (BI-1, Bill, 11/20/2008)

Bill was thoughtful in that he recognized that it was his burden as an online teacher to find ways to increase student engagement. Bill’s excerpt confirmed that he found a connection between communicating with students and creating student engagement. Since Bill was sensitive to his connection that improving one will improve the other, he focused much of his attention on finding ways to increase online communication.
Bill’s interest in promoting online communication was obvious through his engagement in the online course discussion boards. Bill was the most active participant. He appreciated the multiple means of communication that he had available as a student in the online course. When Bill discussed the importance of the multiple means of communication, it brought him back to discussing student engagement:

A big part of the class was the discussion board and I think as it was taught there was a big focus on using multiple means of communication. There was the Elluminate session, the discussion boards and also the assignments. That’s a good way to increase engagement and that’s something that I would like to do. If you give kids multiple ways of interacting with the content you are naturally going to increase engagement and so that’s something I’d like to do in the future. (BI-2, Bill, 01/06/2009)

It became evident quickly that Bill was focused on increasing student engagement as he continuously connected online teaching strategies to the possibility of increasing student engagement.

*Student engagement and classroom management.* In addition to student engagement emerging from his explanation of his online teaching needs, student engagement surfaced in one of Bill’s course assignments. Bill was asked to discuss the most difficult part of his classroom management. For Bill, creating student engagement was his most daunting challenge. Bill was in need of professional development that would assist him in motivating more of his students. His frustration was apparent from his response:
The main difficulty in managing an online classroom is creating engagement and tracking down students who lack motivation. In my experience, many students lack the personal drive and discipline to complete their work. (BI-2, Bill, 01/06/2009)

Bill was a new teacher who seemed to be losing his own motivation as a result of his inability to increase his students’ engagement. The following excerpt provides additional support in demonstrating that Bill was frustrated; feeling helpless and yet looking for elements that he could take from his professional development course that would motivate his students to engage:

From a practical standpoint, I can’t really guide them to the computer. I can call them and try to ask them to go to the computer but a lot of them know how to play the game. And just press the button to turn it on and basically smack the key with their fingers, and they please me so I get off the phone and they go back to sleep. So I think a lot of them can play the game a little bit. I can only do so much discipline wise. What I take from the class though is that if I do my best to make it interesting and look like something they want to do, maybe I can kind of inspire in them the desire. (BI-2, Bill, 01/06/2009)

In Bill’s excerpt above, it is evident that he was disheartened by his inability to “make” his students engage in his course. The discipline and classroom management techniques that he learned during his teacher preparation program had become obsolete because he was not prepared to “discipline” a student that he could not see or find. Bill’s frustration
with his low student engagement rate may be resolved through professional development
dedicated to increasing student engagement.

*Jackie*

Jackie was a first year reading intervention teacher who worked with students
enrolled in a high school government course. Her primary professional development goal,
which was to increase student engagement, was evident from her (a) student engagement
concerns, (b) emphasis on student engagement in her online classroom, (c) classroom
management frustrations, (d) selection of technology for student engagement, and (e)
desire to receive professional development in the area of increasing student engagement.

*Student engagement concerns.* The major challenge that surfaced from all of the
participants was the lack of physical presence due to teaching online. Jackie had no walls,
desks, or students in the classroom. Instead, she was removed by time and place and felt
isolated. Jackie admitted that she found it extremely difficult to be as effective as she
would be with a physical presence established where she and her students were bound by
the same time and location.

It’s difficult. It’s very difficult to be an online teacher because it’s very hard to
hold them accountable. I have students that haven’t been online in 20 days who
are being tracked down by truancy. I have another student who can’t log on
because their parents stopped paying their cable bill. If I can’t get in touch with
them, how can I teach them as effectively as I would if the law requires them to
sit in a chair in front of me for 47 minutes a day? As for the ones that I can get
engaged, yes, absolutely. It is the student engagement that is the hardest part by
far. If I can get them on the phone on a regular basis, if I can get them into the Elluminate session, they’re mine. (JI-1, Jackie, 11/24/2008)

Although she was not yet as frustrated as Bill, it was apparent that Jackie felt powerless regarding the students that did not engage. She was confident that once she communicates with them, she would be able to work with them as a teacher. However, what Jackie was lacking was the knowledge and resources of appealing to those who did not have the motivation to engage in her work. Jackie was asked to further discuss her student engagement rate. She explained that due to her position as a LIFT teacher, she worked with a lot of the kids that were struggling in their general education class. A LIFT teacher in the online school that employed Jackie was a teacher who provides reading or math intervention. Jackie was assigned to provide reading intervention to high school students that were performing lower than average.

As with all of the participants, Jackie explained that if her students engage, they have every opportunity to learn just as much as those who are in a brick-and-mortar school. Below is Jackie’s explanation of how she perceived her online students’ opportunities to learn. Again, even though the word “engagement” was not used directly, Jackie’s explanation demonstrated that she needed assistance in finding ways to engage her students in order for them to benefit from any learning opportunities.

If they can get into the Elluminate sessions, they probably would because they would have more chance to interact with each other. Because I can do a lot of teaching, but there’s so much that students can learn from one another. And they may say, “oh my gosh, that’s a question I never would have even thought to ask.”
You know, and if they aren’t there it isn’t as easy to get that answer. They’re not
going to even think to ask that question. If they have the chance to do that online
interaction, yes. If they are completely isolated, maybe not so much. (JI-1, Jackie,
11/24/2008)

Jackie’s answer sounded as though she was at a standstill waiting for her students
to find the motivation within themselves to engage in her class. It was clear that Jackie
believed once her students found a way to engage, everything would be better. However,
there was a change in Jackie’s ownership of student engagement between her first
interview and her second. During Jackie’s first interview, she explained that she felt as
though she really had not been doing enough for her students. She would call them and
ask them if they need help. When a student replied with the answer “no,” she would
respect their answer and move on to the next student to offer her assistance. Jackie
explained a personal epiphany during the second interview where she began to see herself
in a more professional light. Below is Jackie’s explanation of what she plans to do to
increase student engagement.

Definitely expanding class time. Not just letting them run through all of the
modules by themselves. I was very guilty of that in the beginning of my teaching
career here. I just basically said, I’ll check in on them, say “hey, do you want me
to reset these quizzes?” Without really going over the material and that is
definitely going to change. This is not a self-guided class. I’m a teacher. I need to
actually teach. I need to change it to we’re going to sit down and we are going to
take this quiz together and we are going to work on the written portion together.

(JI-2, Jackie, 01/09/2009)

Jackie’s determination to increase her student engagement was supported through the growth that she displayed from her ability to move from a passive facilitator to an active teacher.

**Student engagement in Jackie’s online classroom.** Jackie’s current practices for increasing student engagement mostly revolved around her virtual classroom. Jackie’s virtual classroom was something she was able to directly control. She took ownership over maintaining the welcome page that all visitors encountered upon entering her classroom. To engage her students with the online classroom, she changed the images and announcements regularly. To encourage students to complete their work, Jackie created a counter to remind them of the remaining days left during each semester. Her motive behind the time and effort that she exerted to maintain her online classroom was again, student engagement. Jackie made it very clear that increasing student engagement was the force that drove her desire to learn technology, participate in professional development courses and sacrifice her personal time in order to create and maintain her online classroom.

**Student engagement and classroom management.** Jackie, like Bill, found that student engagement was a part of classroom management for online teachers. Not completing assignments is not showing up for school. Jackie was trying to attempt new ways from her professional development course to engage her students with the content. Jackie did not appear that she was willing to give up on finding ways to increase her
students’ engagement. She expressed confidence in her ability to reach and teach her students if they would simply “show up.” Once students started to attend her Elluminate sessions, they continued to participate, though she had a long way to go as far as the number of students that attended. However, Jackie did not appear to have any plans of giving up. She planned to continuously search for ways to help her students make connections in her online classroom that would assist them in learning online.

*Technology and student engagement.* During a discussion with Jackie regarding her accessibility and ability to use the technological tools that she found beneficial, she again brought the discussion back to student engagement.

I would like to use Elluminate a lot more. I’d like to be able to have much more regular interaction with these kids. But again, the biggest problem is engagement. I somehow have the ability to pick it [technology] up pretty quickly. The biggest problem just seems to be getting people actually involved. When I do an Audacity, if I do an Elluminate session I work on it for an hour or so and I get two kids to show up. It’s disheartening. (JI-1, Jackie, 11/24/2008)

Evident from the excerpt is that a discussion about technology lead to a discussion about its insignificance without an increase in student engagement. Jackie was basically explaining that it does not matter how well she was able to use a tool, or how much time she invested into the creation of a lesson if the kids were not there. Jackie did acknowledge that she needed help in the area of increasing student engagement.
Professional development and student engagement. When Jackie was asked directly the areas of her online teaching that she needed the most improvement in, student engagement came out immediately.

The interaction and the engagement. I need to find better ways to get these kids online because if they don’t pick up the phone, they don’t pick up the phone. I talk to more answering machines than I do to kids most of the time. And that’s so frustrating because if I could actually get them to ask me a question I’d love to answer it. I cannot tell you how many times I have told students email me your assignments before you hand it in. I’ll look at it. I’ll edit. I’ll help you. Your writing needs some help. You need some serious work. That’s why I’m in this classroom is to help with writing. Not a single student has actually taken me up on that. And that’s out of 130 kids at our highest. None of them will email me their assignments in advance of sending it in. It makes me feel a little useless. So maybe I just have to advertise myself better, and maybe my partner teacher has to advertise me as the go-to person for writing. (J1-1, Jackie, 11/24/2008)

Again, Jackie was asked a question that could have related to anything in the field of online teaching, however, she brought the conversation right back to increasing student engagement. It became more apparent as Jackie spoke, that she connected increasing student engagement to every important aspect of her online teaching needs. As a follow-up in trying to identify Jackie’s professional development goals, she was asked to explain what she would like to see happen in the realm of professional development courses. Jackie stated that she would like more professional development courses that break down
the difference between online and face-to-face teaching due to the difference in student accountability between the two roles. She conceptualized these two roles as very different and found herself with a slight disadvantage due to her lack of preparation from her teacher preparation program. As with all of the participants, Jackie was educated to teach in a physical classroom with physical students sitting in the same room. She really felt that teachers should understand the difference between the two roles prior to obtaining an online teaching position.

How different it is from, I keep hearing the term brick and mortar. You don’t have that face-to-face interaction; you have to occasionally chase a student down. The accountability of student to teacher is so different. And you’re going to have to make students accountable for their actions. That’s the hardest thing. How many students we gave failures to. Not even incompletes. It broke my heart because I know these kids could do the work, but they would not sit down. And we had to hold them accountable for that. That’s probably the toughest thing about making the switch over to online education. (JI-1, Jackie, 11/24/2008)

Again, Jackie did not use the word “engagement,” however, her explanation and reasoning behind her desire to understand the difference between the role of the face-to-face teacher and the role of the online teacher was that she did not know how to make her students “show up.” In essence, she could not get them to engage.

Jackie’s own engagement was not as high as one would expect to be in the online course. She mentioned several elements that deterred her engagement. As Jackie reflected on her feelings as an online student, she acknowledged how quickly students lose interest
if they are left to decipher the instructor’s unclear objectives and explanations. Jackie was not always diligent in turning in her own assignments and admitted to losing interest in certain modules. She felt nervous and rushed trying to comply with suggested due dates and occasionally lost a sense of the goals of the course. From her experience, Jackie planned to provide her own students with more clearly constructed directions and explanations to ensure they would not feel as isolated as she did at times.

Jackie also expressed frustration with technical glitches that occurred due to the browser setting that was used when a PDF file was uploaded into the course. As Jackie attempted to open her file, she was immediately removed from the page that she was working on and taken to the beginning screen, where she had to attempt a series of steps to return to the page where she was originally working. Jackie was concerned about the impact that this type of browser decision could have on the engagement of her students. She was aware of this potential issue; however, it was not until she experienced the burden as a student that she understood the significance of something as simple as a web browser setting inhibiting her students’ engagement.

Summary

Based on the findings from the four teacher participants, increasing student engagement was the primary concern identified across the board. Each of the teacher participants indicated how increasing student engagement affected most of the aspects of their online teaching. Rose and Jackie, for example, indicated that student engagement was the one obstacle that would prevent students from having the same learning opportunities online as they would in a face-to-face setting.
In the realm of instructional design within the participants’ online classrooms, Rose created a special area to display student work and promoted student ownership through choices in her online classroom by allowing students the opportunity to choose the lesson that they wished to complete. Her efforts stemmed from her desire to increase student engagement in her classroom. Nancy’s desire to create online manipulatives came from her desire to promote student engagement. Jackie embedded visual and auditory appeal and created advanced calendars to remind students of the days remaining in the semester. Her motivation for these applications was also to increase student engagement.

Phone calls and personal communication also surfaced as a way that the teachers demonstrated the value they placed on increasing student engagement. Rose was an example of personal phone calls, as she called all 323 of her students bi-monthly as a strategy of building rapport and increasing student engagement. Bill created discussion boards in his classroom to increase communication, which he hoped would increase student engagement.

All of the elements described in this section provide evidence in the value that online teachers place on student engagement. As mentioned throughout this section, if students are not engaging, they cannot learn. In a virtual school setting, the online classroom is significant as that is where each student enters to complete their coursework. As student engagement was identified as the primary concern for the online teacher participants, another theme that arose through data analysis was the teachers’ desire to effectively use technology to create an enticing learning environment.
Increasing Knowledge and Ability of Technology

The data from this study identified that the online teacher participants had a primary professional development goal of learning how to increase student engagement. Much along the same lines, they were found to also have the desire to increase their knowledge and ability of technology to teach online.

These findings are in conjunction with one another as the teachers demonstrated that their hopes of a more interactive and enticing online classroom would cause their students to log in and interact with them more regularly, hence increasing student engagement.

During the next four sections, examples are presented that illustrate how the online teachers aspired to increase their knowledge and ability to use technology to teach online. The data that led to this theme emerged through Rose’s aspiration to watch students create art; Nancy’s desire to incorporate online manipulatives into her classroom; Bill’s attempts to improve online communication and instructional design; and Jackie’s implementations of audio components to each of her lessons. A summary is provided at the end of this section to demonstrate a cohesive review of this data.

Rose

Upon data analysis, it was evident that Rose’s professional development goal was to increase her knowledge and ability to use technology to teach online. Data was collected from Rose’s (a) current online teaching environment, (b) expressed technological needs, and (c) ability to use current technology.
**Rose’s current online teaching environment.** Rose had an online classroom where her students could obtain valuable information such as field trips, notes from the teacher, and course content. Rose also provided her students with a personal touch as she had photos of herself displayed along with her phone number and address (post office box for students to mail assignments that cannot be completed online). As students entered Rose’s online classroom, they should have been able to feel an immediate sense of their teacher. Rose had multiple pictures of herself, including one where she was wearing a cap and gown from her own graduation. She also posted her own artwork to provide students with a sense of herself as an artist. On a much lighter note, Rose included an “All about me” page where she even discussed her favorite animal from the zoo.

Rose, like all of the participants in this study, used a learning management system, IQity. The IQity software allowed Rose to create web pages for personalization, course content, and her class calendar. Her class calendar contained all school, classroom, and personal events. Her messaging system, that worked much like email, enabled students and teachers to communicate. Rose also had a classroom resources section that contained communication tools such as discussion boards.

**Rose’s technology needs.** As an art teacher, Rose expressed frustration by her inability to see her students’ progress on assignments. She felt as though she would have been a more effective teacher if she could find ways to see what they were doing.

I think I would be more effective if I could see them progress and when they got stuck. I always email them and let them know that when they do get stuck to let
me look at their work. They can upload it to Elluminate and we can meet one on one. (RI-1, Rose, 11/21/2008)

During Rose’s explanation, she acknowledged using technology to see her students’ work after it was completed; however, she did not mention any knowledge of her ability to use the technology that would solve her problem. Depending on her students’ willingness to receive the instruction that Rose desired to provide, she was in need of assistance in using the technology that would allow her to view her students’ work while in progress. Rose’s explanation regarding this possibility was evidence that she needed and wanted professional development to increase her knowledge and ability to use technology to teach in an online learning environment.

Rose explained the areas where she needed professional development. She would like to learn how to use more of the features in Elluminate. Rose expressed concerns regarding her Elluminate sessions, because they were synchronous. Synchronous sessions are live sessions that online teachers offer to work one on one with their students, or to teach a live lesson from beginning to end. These sessions include audio and chat room capabilities along with an interactive white board. Rose mentioned wanting to learn how to add video into her lessons. She attempted to incorporate videos, but was unsuccessful. She would have also liked to use tools that would assist her in motivating her students’ and would have appreciated additional assistance in making her lessons more interactive. Rose felt that html training was something that online teachers should be provided.
Rose’s ability to use technology. Rose described the tools that she used to teach her students. She mentioned the online lessons that were posted in her online classroom and her Elluminate software.

They have written lessons which were provided to me when I started. I changed a few of them and have plans to change them a little bit more for next semester and then I also use Elluminate weekly. They’re always on Wednesdays so students can come to those. I record them for the students that can’t be there at that time and I also use discussion boards and those are the basics… I did an experiment with video, but the video didn’t work too well, I tried the application share option but it got too choppy so I’m not doing that right now. I always make a PowerPoint® and I have lots of visual art from famous artists that they can look at and I throw in some funny stuff, some funny visuals to keep them interested. (RI-1, Rose, 11/21/2008)

This excerpt shows Rose’s explanation of how she was unable to create videos for her students. Throughout the online professional development course that Rose participated in, the author created videos of other online teachers, which provided tips and advice to new teachers. Most of all, Rose enjoyed watching those videos of her online teacher colleagues and during an interview, expressed her gratitude as she explained that she found those videos to be the most influential component of her online professional development course. Receiving professional development that addresses the technology used to create videos would be beneficial to Rose as this was a skill that she desired to have in order to create a classroom that she would find more engaging.
When asked to explain her perception of how effectively she felt that she used her online teaching tools, Rose initially rated herself as a seven out of ten. After participating in the professional development course and completing a technical skills survey, she changed her rating to an 8 or 9. This was interesting as she indicated being unable to use the technical tools that provide her the ability to use the features of Elluminate. The tools that Rose had not been able to manipulate were those that would allow her to differentiate instruction or share applications with her students. She was also unable to create videos, which was something she valued from her own experience as an online student. The next excerpt is Rose’s explanation from her first interview.

On a scale from one to ten maybe ten being the best I am probably at a seven right now. I think I got most of it but I still want to learn more. I never went through the Elluminate training. I really want to sit down and do that soon. There are some things I don’t quite understand. I don’t know if I’m doing the application sharing right, so I’d like to learn more about that and see if I’m missing things that I could be doing also. (RI-1, Rose, 11/21/2008)

Rose’s feeling that she “got most of it” indicates that she had enough knowledge of her technical tools to survive, however, she was also asking for help when she openly admitted that she never participated in Elluminate training and had limited knowledge of features that will move her toward the teaching environment that she wanted to create for her students.

Based on the data collected from all of Rose’s comments, and the identified gaps in her knowledge of tools that she used consistently to teach, Rose would benefit from
and was asking for, a professional development opportunity that would increase her knowledge and ability to use technology to teach in an online learning environment.

*Nancy*

Upon data analysis, it was also evident that Nancy had a professional development goal that would increase her knowledge and ability to use technology to teach in an online learning environment. As with all of the participants, the data that supported Nancy’s desire to increase her knowledge and ability to use technology was collected from her (a) current online teaching environment, (b) expressed technological needs, and (c) ability to use current technology.

Just as all of the teacher participants, Nancy had quite a challenge. Her students were separated from her by place and time; therefore, she was forced to find alternative methods to provide effective instruction through technology. For Nancy, this could best be accomplished through an interactive learning environment.

*Nancy’s current online teaching environment.* Nancy’s homeroom page had visible announcements upon entry into her classroom. She had a live help section, information regarding the current quarter, and a welcome message for new students. Her online classroom was very easy to navigate and she attempted to establish her presence through personal pages such as “Meet Mrs. Nancy,” providing students the opportunity to read about her education, experience and hobbies. Nancy did not have any pictures of herself displayed, which was found in many of the other online classrooms. Nancy also used the same learning management system as the other participants, IQity. For this reason, she had very similar navigation and classroom features. She also had the IQity
class calendar displayed, which provided students access to school, class, and personal
events. Below her class calendar was a “Pacing Guide” that included all assignments and
due dates for each semester. Also easily accessible in Nancy’s classroom was information
linking to counselor information, Ohio Graduation tips, and course content.

Throughout both interviews, the review of Nancy’s classroom and during her
coursework, Nancy discussed Elluminate as the synchronous technology that she used to
teach her students. One example of how Nancy described using Elluminate is as follows:

I also work in Elluminate for at least one hour per day with students that show up.
There are a few other teachers and myself who have set up 10 Elluminate sessions
during the week that students can get into. So there are other opportunities and
other teachers could actually be working with my students. I would also be
working with theirs. (NI-1, Nancy, 11/21/2008)

Synchronous sessions provide value to online teachers in general, but especially math
teachers. As a math teacher, Nancy must use synchronous technologies to demonstrate
live problem solving. With knowledge of synchronous software, Nancy would be able to
teach her students step-by-step, how to solve a problem. She would also able to watch her
students solve these problems. Learning to use the technology that provides her this
ability was crucial to her instructional needs.

Nancy presented herself as confident using the technology she had available to
her even though she was not prepared to teach with technology from her pre-service
teaching program. Nancy explained her preparation to teach online courses as
nonexistent. She indicated that she did not receive any type of online teaching preparation
or any instruction regarding the creation of online teaching environments from her four year university or student teaching experience.

*Nancy’s technology needs.* When Nancy was asked to describe herself as an online teacher, she indicated specifically her difficulty in creating large projects or using online manipulatives. Incorporating online manipulatives was revisited several times by Nancy throughout both interviews and within her course assignments. Below is an example of Nancy discussing online manipulatives:

> It is difficult I think to do a large project or use the manipulatives online. So what I have in my classroom is a lot of videos that the students could actually watch. A video on the material. They could go in and read like a notes page, a summative page, and then go in and read the actual material. And then the students also have an option that I can teach them one-on-one through [synchronous technology].

(NI-1, Nancy, 11/21/2008)

Without knowledge of the tools that would allow Nancy to incorporate online manipulatives into her classroom, her road ahead becomes much steeper, not only would she not be able to work with her students hands on, she would not be able to work with them at all if she is limited in her knowledge of using the necessary math tools. Nancy identified the teaching aspects that she felt she could improve upon, which centered on her ability to use technology.

> I guess for myself I would think actually being able to put more manipulatives into my classroom, being able to put some fun things in there so maybe some students who are reluctant to get in or think that math is dry and it’s a hard
subject. At least maybe if there was something that could drive them to get them in there. Something a little more fun. (NI-1, Nancy, 11/21/2008)

Nancy also indicated that she wanted to learn how to create and upload her own videos. She mentioned several times throughout the professional development course that she relied on videos in her online teaching. However, Nancy did not have the knowledge or ability to create her own. Technology may be taken for granted by teachers who are able to stand in front of a physical classroom and use their hands and voices. However, this is not the case for online teachers who find they have to learn new ways of having their voices heard or their faces seen. Teaching online teachers to use the technology that will enable them to be seen and heard would be valuable for all of the online participants.

_Nancy’s ability to use technology._ As did all of the online teachers that participated in this study, Nancy had online teaching tools available for her to use as she deemed appropriate. Nancy explained her online classroom in detail and discussed the navigation and instructional design that existed. Nancy mentioned several times throughout the interview that she wanted to become more competent in web designing. This is important to online teachers who use html pages to create their classroom environment. As a new teacher, Nancy was experiencing an adjustment into the teaching profession; however, she had the additional challenge of having to learn how to use the tools that were extremely unfamiliar to her upon employment with her online school district. She was not accustomed to using the tools of which she was expected to teach with and was confronted with the additional hurdle of serving a population of at-risk
students. Nancy indicated that one-third of her students had special needs in the classroom.

The technology just wasn’t there when I was in school so I think as far as that goes. I know at least to get into this online school I took a technology assessment and I got a 97 percent on that. And I thought wow that’s great, and they said I needed a 70 to be considered for an interview so I thought I was pretty confident. And then I come to find out that no I’m not. So I think as far as that goes there might be just another instead of Microsoft® Word, PowerPoint®, and Microsoft® Excel® there might be something else as far as technology to find out where teachers stand before they start. (NI-1, Nancy, 11/21/2008)

For Nancy, her students would not be able to easily navigate her home page or transition between pages in a lesson through word processing software. To create an interactive learning environment for her students, Nancy felt that she would best be able to create that environment through her ability to work with html pages. Nancy described her online tools as follows:

We have a classroom in IQity. I use that, the built classrooms. I use some approved websites that can be used as manipulatives, and mostly I use Elluminate to teach one-on-one or in a small group setting online. And the one other program NVu is what I would use to create web pages to put into my classroom. (NI-1, Nancy, 11/21/2008)

As the discussion continued, Nancy was asked to explain her ability and effectiveness to use the tools that she needed to teach her students.
I think as far as the technology goes there are obviously programs I would like to learn more about, web-based programs like the NVu that I mentioned. I would like to learn a lot more about that, but as far as making it useful and using it effectively I think I am very capable of using the technology that I have. Elluminate I believe I can use that to effectively teach and my informational classroom in IQity. Obviously you can always learn more, but I think I am very effective in using that technology also. (NI-1, Nancy, 11/21/2008)

The programs that Nancy mentioned wanting to learn more about were the programs that she needed to more efficiently teach her students. For example, NVu, which was mentioned in her description, is the program that she would use to create any type of web page that students would see upon entering her classroom. For Nancy to create the interactive learning environment that she desired, she must receive professional development opportunities that would increase her knowledge and abilities in using this program. Nancy also mentioned feeling competent in using Elluminate, however, she did not mention any of the advanced features that her colleagues use. These advance features go beyond direct instruction and uploading Power Point®.

During her online course, Nancy was also asked to participate in the same technology skills survey as all of the other participants. Nancy was asked if she found her results surprising in any way. She indicated that she was not surprised by her results. She instead identified additional areas that she wanted to become more competent in, such as computer hardware, software, and troubleshooting. She referred more students than she would have liked to the helpdesk and would have preferred to be able to help get them
working. For Nancy, the skills assessment was an indication of areas where she was unknowingly weak, and although she stated that she was not surprised by her score, she actually changed the rating she gave herself to one category lower after the assessment. Nancy was the only participant whose perception lowered as a result of her participation with the activity. She was still not able to articulate exactly all of the technical areas in which she needed additional assistance; however, she was very eager to learn. Nancy planned to take her skills survey with her to register for additional graduate coursework. The data collected through Nancy’s interviews and artifacts indicated that she was determined to increase her knowledge and ability to use the tools that would enable her to create a more interactive learning environment for her students.

**Bill**

Upon analysis of data relating to Bill, it was evident that Bill also had a professional development goal that would increase his knowledge in using the technology that would assist him in creating an interactive learning environment. Data was collected from his (a) current online teaching environment, (b) expressed technological needs, and (c) ability to use current technology.

As an intervention specialist, Bill worked with students who had not yet passed the reading and/or writing portion of the Ohio Graduation Test (OGT). These students had additional academic needs identified in the areas of reading and writing. For Bill, increasing his knowledge and abilities in using the technologies that would enable him to create an interactive learning environment would be beneficial, especially given that he
had to find additional ways to teach his online students that did not master the content originally.

Bill’s current online teaching environment. Bill’s online classroom was located inside of the IQity Learning Management System. Within Bill’s classroom, he had images and colorful backgrounds to reflect the winter season. Several links were displayed allowing students immediate access to contact him through email or phone. Due to Bill’s learning management system, he also offered his students access to all of their coursework for the entire semester, recorded synchronous sessions where he records instruction live and then posted it for his students to watch. Bill also had visible links to his classroom discussion boards and personalized resource pages. As Bill worked with students in reading and writing, he used technology to provide instruction through the form of feedback. The following excerpt is an example of how Bill used technology for his instruction.

When I grade essays I like to make comments in Microsoft® Word, highlight mistakes, try to really show them as much as I can, as much as I would in a brick and mortar school. Editing the paper, redlining it and highlighting mistakes and making comments; I can do all those things in Microsoft® Word so I’ll do that. And I’ll save a copy of my own and re-upload their essay with corrections and comments. (BI-1, Bill, 11/20/2008)

For Bill, the ability to edit his students’ papers through technology was valuable; as he indicated during his first interview through the estimated hours he spent on this task each and every day. Although this is a basic word processing skill, many of the teachers today
may not have the knowledge to edit papers through word processing. To further discuss Bill’s instruction through editing, there are more advanced tools available. He may decide to edit through an html editor, or through synchronous software. There are also free programs, as one that is provided by SAS, where Bill would have the software that provides editing feedback to the student, which would offer him more time to spend on personal communication and instruction as he desired. Increasing an online teacher’s knowledge and ability to use the technology will provide more time for them to concentrate on providing effective instruction to their students.

Bill’s technology needs. Bill was the one participant that viewed himself as “tech savvy.” He felt that this was largely due to his age and interests in technology. Technology was important to Bill, as it was mentioned during his description of himself as an effective teacher. Below is an excerpt of how Bill viewed himself as an effective teacher.

I think that as an online teacher I’d be a better teacher than I was in a classroom because I’m really good with computers just being from my generation, being 23, I’ve been using computers since I was in first grade, that I can do a lot more in an online environment than I can in a physical classroom. I have access to unlimited amounts of resources that I can use to help my students, and I never wanted to teach in a brick and mortar school. I still don’t because I think online education that allows for more of a one-on-one work. And it’s just better for the student I think. I really do. I think it’s easier to learn in that situation, and as a teacher it’s easier to teach in that situation, too. (BI-1, Bill, 11/20/2008)
Bill’s excerpt demonstrated that he valued technology in teaching and learning and had found a plethora of resources that were available to him as an online teacher. For Bill to effectively use the resources that he alluded to, he must first learn how to use them. The amount of resources available to assist online teachers in creating interactive and engaging learning environments is supportive of their need for learning how to use them. Bill’s willingness to incorporate them into his classroom was indicative of his desire to learn the technology. Bill further supported this finding when he was asked which online teaching aspects he felt were most important for online teachers. Bill’s response included that he would like to learn more about the ways that technology could be used to communicate information.

Bill was asked to explain which component of his professional development that he found to be the most influential and he did not hesitate in his answer. Bill most valued the exposure to the exemplary classroom that he was able to visit during his professional development course. During the professional development course, the participants were asked to navigate through an exemplary lesson. Bill appreciated the opportunity to see how others organized their online lessons and courses that were different than his own. He found the online classroom visually appealing and easily navigable. Having the opportunity to view the organization of other online classrooms can directly influence the actions of the online participants of this study. Bill was excited and enthusiastic to learn of other ways to design an online classroom. The exposure to the instructional designs of other online classrooms would enable Bill to reflect upon the design of his own online classroom and change his online learning environment as a result.
Bill was asked to discuss his current form of online delivery. His form of delivery was mostly textual, meaning that his students had to read everything presented from their teacher. He also found that the pages were not broken down as much as he would have liked, which created the need for students to have to scroll down to access their material.

Bill also identified a lesson that he found to be impractical for students. The lesson he presented required students to print a page and write in the requested symbols and scan it back to him. This process that he was referring to could be tackled through appropriate professional development devoted to providing teachers with the knowledge and skills needed to create an interactive lesson where students can eliminate the printing and scanning. Bill was sensitive to instructional design and also was not pleased by the amount of text on the page as opposed to images and audio clips.

This lesson seemed to give Bill mixed emotions as he did value the interaction between the students and the content, the multiple learning styles that were addressed, and the consistent navigation of the lesson’s layout. However, he also found that the same layout for each lesson can be boring to students that need stimulation. He found the lesson to be text heavy and viewed it as impractical when he realized the additional steps that students would have to endure to complete this assignment. Bill would benefit from exposure to additional teaching software that would allow his students to interact with the content online versus having to print and scan to submit an assignment.

Bill concluded that this lesson had too many links for students to decipher between, which made access to content more difficult then necessary. As a result of his professional development course, he was exposed to multiple media and various teaching
tools, which made him want to explore more visually appealing instructional design principles with the inclusion of more visual and auditory stimulation. Once Bill was able to identify “what” he wanted to incorporate into his online classroom, he would need to learn “how” to incorporate those techniques.

To further address the importance Bill placed on using technology to teach online students, he created an instructional strategy that resulted from his professional development course. He took a different approach than the others when completing his assignment. The assignment asked the teachers to incorporate the instructional strategies that were outlined in their professional development course. Instead of using the strategies presented to him, Bill found his media to represent his instructional strategies. The connection between the media and instructional strategies demonstrated the value Bill placed on technology (see Figure 1).

*Bill’s ability to use technology.* Bill was also asked to explain the tools that he has available to him to establish a presence with his students. The identification of tools is important to note because Bill may not have been aware of all of the options he had available to him. Based on Bill’s answer in the following excerpt, he acknowledged his online classroom through IQity and the synchronous software.

I use IQity and what we try to do with Elluminate is we actually record lessons, which I guess are more or less just lectures trying to take the curriculum and kind of rephrase it and break it down a little bit. I work in a gold course where things are already established and set up, and so I really don’t have the liberty to change anything. But what I can do is I can explain it because I think some of our
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>What will you do while utilizing this strategy to create a community of practice?</th>
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<tbody>
<tr>
<td>Discussion Board</td>
<td>Social Presence: The teacher can provide immediate feedback and create a community where thought is celebrated.</td>
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<tr>
<td></td>
<td>Cognitive presence: The use of probing questions allows for a progression of thought and advancement of higher-level thinking.</td>
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<td></td>
<td>Teaching presence: The teacher can frame a lesson’s learning goals by posing questions that promote active consideration of the lesson.</td>
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<tr>
<td>Elluminate Session</td>
<td>Social Presence: Student-teacher dialogue creates a community where common connections are used to develop rapport.</td>
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<tr>
<td></td>
<td>Cognitive presence: Modeling allows for a student to observe thought processes, techniques and attitudes towards material that allows for more complex thought.</td>
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<tr>
<td></td>
<td>Teaching presence: Modeling allows for the student to observe the lesson’s goals. Also, the teacher can assess student learning instantly in these sessions and react accordingly.</td>
</tr>
<tr>
<td>Telephone Contacts</td>
<td>Social Presence: Regular conversations allow a teacher to understand student motivations and needs.</td>
</tr>
<tr>
<td></td>
<td>Cognitive presence: Conversations with a student can allow a teacher to develop a perspective of the student’s level of thought. After these developments, the teacher can expand student thought.</td>
</tr>
<tr>
<td></td>
<td>Teaching presence: The teacher can frame a lesson on the telephone and intervene to connect previous learning to the new material.</td>
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*Figure 1. Bill’s instructional strategy assignment*
students really need it to be explained in multiple ways using different intelligences and strengths. And so what I’ll do is I’ll record the lesson in Elluminate, and I’ll post that in a drop box so they have easy access to that. Those are pretty much the software items that I use. (BI-1, Bill, 11/20/2008)

Throughout his interviews, Bill indicated his ability to use technology as “fairly effective” and as enough to “get the job done.” He felt especially successful in his ability to use the technology to explain the subject matter in different ways. He did this through synchronous software. He created and recorded live sessions that were available for students to view 24 hours a day, 7 days a week, by clicking a link to the recording. What Bill did not mention was using his synchronous software or IQity discussion boards to teach lessons in an interactive way. Bill had the technology available that would enable him to have his students working on projects or activities through the IQity discussion board. As a teacher of reading and writing, he could also organize book clubs through the discussion boards. From a synchronous instructional standpoint, Bill could have discussed using break-out rooms to allow his students to work in groups or create interactive pages that he and his students could work on collaboratively. Bill’s silence in these areas supported that he would benefit from professional development that would increase his knowledge and ability to use technology.

One area that Bill indicated as not feeling fully developed was in the creation of videos. Bill enjoyed the videos that he was able to watch during his professional development course; however, he did not feel ready to create his own. In the excerpt below, Bill explained how he would like to learn to incorporate video into his classroom.
That’s something I’d like to figure out how to do, but I’ve yet to do that. I mainly just use PowerPoint®, and I’ll go through it and verbally explain it. I’ll also record any audio and there’s a bit of visual with the PowerPoint® and kind of showing concepts visually. (BI-1, Bill, 11/20/2008)

As part of the online professional development course, Bill participated in an online skills assessment that was used as a measure to rate the participant’s ability to use the technology available in the field of online teaching. Bill felt that this survey placed him ahead of the curve and found only a few weaknesses: html writing, macro writing, and the advanced features of html, all areas which he did not feel that he needed competence in to be a successful online teacher.

I feel that my technology skills are sufficient for use at [my online school]. My major strengths are with the Microsoft® Office Suite which is used significantly at [my online school] and any contemporary working environment. My knowledge of software is combined with a basic knowledge of hardware and troubleshooting which allow me to have an ability to assist students with technology issues or related questions. As an added benefit, I can “Google” any questions that I am unable to answer or call the Help Desk when faced with a problem that I cannot resolve. In general, my skills allow me to complete the majority of my tasks at [my online school] and the added support creates an environment where nearly all issues can be resolved with ease. I have many areas that I would be interested in improving. Learning about html would likely be a valuable tool at [my online school], just as added knowledge of video and audio engineering. I only have
minimal experience with web page development and would be very interested in developing skills to create pages from scratch and write in the language of the page. I would expect that this added knowledge would allow me to rapidly edit pages, recognize any errors and improve the overall efficiency of my classroom. The only areas that I do not possess any knowledge in are the areas of HTML, macro writing and the advanced features of Microsoft® Excel®. While these skills would be useful, they are of minimal usage in the [online] classroom and would only assist in “behind the scenes” work. My interest in improving these skills is minimal because my time would be better suited to improving my teaching techniques and researching material for my classroom. (BI-2, Bill, 01/06/2009)

As Bill mentioned, he did use content that was created and designed by veteran teachers. However, as he gains experience and begins to construct more of the lessons, his opinion may change regarding the necessity and knowledge of html editors, as Bill’s online classroom was created and updated according to the contribution of an html editor. Bill’s desire to increase his knowledge and ability to use technology to teach online was most prevalent through his desire to upload videos. However, when it came to html files, Bill was found to be contradictory. First Bill stated that he did want to learn how to create html pages, but when referring to the results of the survey that indicated his deficiency in creating html pages, he viewed his need to have this ability as minimal. As a new teacher, Bill had not been forced to take a leadership role in lesson construction or classroom design. As time progresses, he will most likely place a much larger emphasis on the
knowledge and ability of the technical skills that he found minimal, as he will find that he will need to use them often and in a more sophisticated manner.

**Jackie**

Upon data collection and analysis, it was apparent that Jackie wanted to increase her knowledge and ability in using the technology that would assist her in teaching in an online learning environment. Data was collected from her (a) online teaching environment, (b) expressed technological needs, and (c) ability to use current technology.

As with Bill, Jackie was a reading intervention teacher. She also had the desire to find ways to engage her students that were not performing at grade level. This additional hurdle made it more difficult for Jackie to teach online as she was separated by time and place from her struggling students. It was imperative that Jackie properly use the available technology to establish her teaching presence to provide effective instruction to her students.

*Jackie’s current online teaching environment.* Jackie’s online classroom was explored early in the study. She had the same navigation options as the other teacher participants, as Jackie was also using the IQity Learning Management System. Upon entering Jackie’s classroom, several images were displayed to greet those who entered. Jackie updated the graphics on her site regularly to keep her students interested in her classroom. Due to her learning management system, Jackie had several online resources that were available to her students. Jackie’s students had access to a class calendar that contained school, classroom, and personal events along with descriptions of the events and assignment due dates. She also had personal information available to her students
such as her phone number and office hours, and a page where she provided a short introduction of herself. Included in her introduction was her wedding picture. Jackie also offered synchronous lessons each week to provide her students with live instructional opportunities.

Jackie was asked to describe her typical day. Within her description, she mentioned her after hours work. Below is an excerpt taken from Jackie:

Once my official classroom hours are over, that’s when I dive into working on the Power Points and trying to keep at least a week ahead on recording the MP3s for anyone who wants to work ahead. And usually I usually do that for at least an hour at night, every other night. (JI-1, Jackie, 11/24/2008)

As Jackie devoted her evenings into incorporating more technology into her online classroom, it was evident that she valued the tools that would enable her to teach more effectively online. This came with a personal sacrifice as she devoted a great amount of time with this effort.

**Jackie’s technology needs.** Jackie was asked to identify characteristics of her own teaching that she found effective in her online classroom. This question was pertinent as it provided information into the technology needed in the areas that Jackie valued. The identification of what she would consider effective was used to draw conclusions regarding the type of technology needed for online teachers.

I have weekly Elluminate sessions. Actually, it’s more than weekly. I just have different showings of the same material because I know I have kids who work during the day, and I have kids who work during the night. Unfortunately, I have
a couple of third shift students also. I’ve talked to somebody who gets home from work at noon. And that’s after two jobs. So he’s a very tired young man, but I try to have at least two sessions at different times during the day where I can cover all the material that we are going over, try to make sure that they understand it, that they can apply it to what’s going on in the world. (JI-1, Jackie, 11/24/2008)

As with the young man Jackie mentioned in her excerpt, she had formed many attachments to her students. She offered live instruction at various times throughout the day to provide opportunities to her students with limited availability. However, Jackie’s participation rate was low in Elluminate.

Jackie attended the training that was created by the software company, Elluminate and turned to peers for assistance in using more of the advanced features; however, her students still were not engaging. Jackie recognized that she still had much to learn regarding her synchronous sessions. She indicated in several instances where she would like to use Elluminate more, but was disheartened by the low participation that occurred. Jackie was in need of learning more strategies that would assist her in creating synchronous sessions that would be meaningful to her students. Jackie needed professional development that would increase her knowledge and ability to use the synchronous technology in her online environment.

Jackie expressed her adoration for her students; however, she felt slighted by her inability to form a visual representation of them. She would also benefit from strategies that would help her to see her students without incorporating the physical presence. As she enhances her technical skills, she may find ways to incorporate the exchange of
pictures or the use of webcams into her teaching. As a new teacher, Jackie was aware that she had much to learn about online teaching and learning. She discussed the areas of her online teaching that she felt could be improved.

In addition to wishing to see her students, she would like them to be able to hear her. Jackie felt strongly that her students needed to hear her voice to make a connection to her. She indicated that the students were engaging with her audio files. She had the evidence to support her theory by sharing stories of how they call her when they identified an area where she left out a component. Hearing about her own mistakes thrilled Jackie, because she had found a way to know when her students were working on their assignments. Jackie mentioned that she could picture her students viewing images and listening to her voice at the same time. She knew that it was possible and was taking steps toward learning the necessary skills to create this type of learning environment for her students.

I’m probably one of the few non-DEC teachers that use Audacity. I’ve been recording audio versions of all of the lessons that are online as just text. That’s for kids who have trouble reading, kids who don’t want to read, and for kids that have so much to do that they don’t have time to sit in front of the computer all the time. They can just upload it to their IPods and take off and listen to it in the car. I just have so many kids that are working full-time, have babies. I think 60 percent of my female students are single mothers. I need to give them something that they can take with them as they move around. (JI-1, Jackie, 11/24/2008)
Jackie was also struggling with some of the online lessons that were available for her to use when teaching her students. She felt that they were text heavy without much use of the students’ senses or learning styles and had been working diligently to include audio components to complement each lesson. This was an internal struggle for Jackie, because she understood the need to have motivating images and visual appeal for all of the students. The majority of her students were able to open the larger files that would create a more inviting atmosphere; however, she had a small population of kids that would not be able to interact with the content if she was not careful. Jackie did have options available and as an online teacher, she must find obtain the technical abilities to create the balance of the two situations.

Jackie was asked to further discuss the visual appeal of one of her lessons. She did not find the lesson as interesting and appealing as she would have liked.

I would put a lot more graphics in there. I would actually have the interviews with their peers. That was fantastic. That really helped because I’m a multisensory learner and just reading this was killing me. So being able to hear it; it was like another version of having my Elluminate sessions because Elluminate sessions I try to make very interactive, very audiovisual, have pictures of examples. We don’t have that on here. We have almost no pictures in the first quarter and in the third quarter of OGT review. So they can’t come up with a picture in their mind without some help so yeah that’s something that needs to be changed. (JI-2, Jackie, 01/09/2009)
In the excerpt Jackie was referring to the videos from her professional development course. As a result of her exposure to videos that were integrated into html pages, she believed that her students would benefit from that same opportunity. However, Jackie was not aware as to how to provide this type of experience. Professional development courses designed to increase a teacher’s knowledge and ability to create video would have been beneficial to Jackie.

*Jackie’s ability to use technology.* Jackie spoke about her preparation to teach online courses. She explained that her current position was her only experience and preparation to teaching online. She obtained her undergraduate degree in 1994.

I got my bachelor’s in ’94 so it’s been awhile. I didn’t even have email until two years after I graduated. I didn’t have a computer. I had a very clunky word processor, which was basically a type writer with a screen. I accidentally managed to crash the computer in the communications classroom and was asked to drop the class so I had no background in computers. (JI-1, Jackie, 11/24/2008)

To assist Jackie in her online teaching, she had several technical tools at her disposal. As with all of the participants, Jackie used these tools at her discretion depending on the determination she made in regards to the needs of her students.

To understand how Jackie viewed her effectiveness in using the online tools available to her, she was asked to rate her usage of her teaching tools prior to her professional development. On a scale from 1 to 10, 10 being the highest, Jackie felt she was a 7. She felt that she began the school year as a 5, but due to her ability to learn and use the audio tools, she had quickly moved herself to a score of a 7.
During her professional development course, Jackie was asked to take a technical skills survey outlining the commonly used technical skills in online teaching. Jackie was very motivated by the results of this survey. She found that she knew much more than she thought she did. She explained that she felt as though she could be a more effective online teacher due to the sense of efficacy it gave her. She understood that she was not a “10” quite yet; however, she felt that she did have the needed skills that segue into some of the more complicated concepts that would assist her in creating that multisensory classroom that she craved. Jackie’s goal of increasing her knowledge and ability in using technology to teach online was evident through interviews, her online classroom, and her course assignments.

Summary

Based on the data presented in this section, the teacher participants all had areas relating to their use of technology where they wished to increase their knowledge and ability. Conclusions were drawn from (a) Rose’s desire to watch her students create artwork; (b) Nancy’s attempt to add manipulatives in hopes of creating an interactive classroom; (c) Bill’s continuous search for communication technologies; and (d) Jackie’s excitement from the survey results.

Instruction in audio and video was found to be significant by the teacher participants. Jackie’s need to include audio in each of her online lessons provided evidence of the significance behind teachers having this ability. All of participants indicated needing assistance in creating videos. Rose, who most valued the video component of her professional development course, unsuccessfully attempted to create
her own videos as she thought this would be beneficial to her students. Without proper instruction in creating videos, Rose will not be able to create her ideal online classroom. Both audio and video are significant enhancements to asynchronous lessons. As the online students learn from home, they should be provided the opportunity to receive visual and auditory stimulation within their content.

The teachers’ online classrooms were also visited during this research. While they all used the same learning management system, IQity, there were elements from within their online classrooms that demonstrated a lack in technical knowledge. Nancy, for example, did not have much audio inside of her classroom. As a math teacher, Nancy struggled to incorporate manipulatives, but had not found success. Her classroom would greatly be improved by audio, video and interactive manipulatives, and because IQity does support the incorporation of all of the features that Nancy was interested in, it would be beneficial for her to learn how to use these tools that are available to her. Bill, who shared an online classroom with another teacher, was uncomfortable with creating html pages and videos, both of which would assist him in providing more learning opportunities to his online students.

All of the participants exhibited a need to increase their ability to work with the more advanced features of the synchronous software. For example, Bill used synchronous software to record lessons that his students were able to watch at a later time. However, he was most interested in using technology to increase communication. If he held more interactive lessons that included his students, he may find a solution to his communication problem. Jackie, who was begging her students to come to her Elluminate
sessions, had been unsuccessful. She was in need of strategies that would entice her students to want to join her sessions. If Jackie were to learn some of the more advanced techniques available, she may have found ways to motivate her students to participate in more of her sessions.

What are the Elements That Should be Included in the Design of a Professional Development Course for Online Teachers?

The four teacher participants in this study all expressed specific preferences regarding the instructional design of a professional development course. After the data was collected and analyzed, it is suggested that the information presented in a professional development course be (a) relevant to online teachers specific needs and (b) include a variety of presentation techniques. This question was addressed by analyzing the data collected from the participants’ interview questions, online teaching environments and required course assignments. The relevance of content presented in an online professional development course is discussed first, followed by a discussion regarding the delivery of online professional development.

Information Presented Should be Relevant to the Teachers’ Needs

One of the two major findings related to this research question was that the information in a professional development course should be relevant to the teachers needs. Data from each of the participants was examined based on analysis of (a) interviews, (b) course assignments, and (c) online classrooms. The teachers most valued the information that was relevant to their specific online teaching needs, which included (a) all of the participants’ appreciation regarding the relevance of instruction on
copyright, (b) all of the participants’ appreciation regarding the relevance of instruction on building community, and (c) Bill’s appreciation of receiving asynchronous modeling. This section concludes with a summary that integrates the findings from all of the participants, which indicates that online teachers make connections to the content that they find relevant to their teaching needs.

*Rose*

Rose was one of only two art teachers in her online school. Her options for obtaining professional help were much more limited than the other participants. Rose’s desire to have a professional development course that would focus on her specific needs was demonstrated by (a) the content she found relevant, and (b) the techniques she planned to implement into her online classroom. Although Rose did not receive specific professional development that related to art instruction, many of the lessons were designed abstractly enough to allow Rose the flexibility to incorporate art into her assignments. The content was found to have value to Rose as a new online teacher as it addressed many areas of communication and community building in online learning.

*Content relevant to Rose.* As an online teacher, Rose expressed appreciation for the information she learned through the copyright module of the online course. When asked to describe what she learned in her professional development course, Rose immediately acknowledged the module on copyright laws. This was especially relevant to Rose as an online art teacher, as she implemented examples of art into her lessons. Online teachers often explore the Internet to find resources that they can add to enhance their curriculum. These teachers need to be very careful to abide by copyright laws as they can
unknowingly and unintentionally break the law as an effort to help their students learn. This is a difficult balance for online teachers as it is convenient to turn to the Internet for supplemental resources; however, the caution for these teachers is to ensure that their efforts do not cross legal lines. Knowing the laws of copyright is beneficial for all teachers, especially those online.

Rose also mentioned her appreciation of having exposure to the professional articles of which she was able to read and respond relating to her work as an online teacher. As pre-service teachers become first year teachers, much of the “required” reading disappears and they are expected to maintain professional reading autonomously. As a first year teacher with an enormous set of new responsibilities, professional development that includes professional articles is a way to keep new teachers involved in scholarship.

As mentioned earlier, Rose did not receive specific assistance in art during her course; however, she did find the professional development influential to her online classroom. She found her professional development relevant and meaningful as it was designed in a manner that allowed her to connect the content to art. She was appreciative of this experience and was striving to provide the same opportunity to her students.

I want to do an overall summary of what they are going to learn in the class just so it’s clear to them. And also clearly setting the objective for this gestural drawing. I need to add that clear objective. And also I want to just have a general paragraph. I’m actually working on rewriting those right now. A general paragraph about how art and design is all around and to have them, I’m going to
put some open-ended questions that they can think about as they read, and say what do you think I mean when I say art and design is all around us? And I’m going to talk about different careers in art, too, so that kind of helps them relate it to the real world. (RI-2, Rose, 12/30/2008)

The lessons that were designed for the online teachers were created in a way that allowed them to incorporate the information presented into their own subject matter. This was advantageous as the course could address teachers from different content areas during one course. However, this one course was not enough to address all of Rose’s needs. She should also participate in a professional development course or workshop that does address her specific instructional needs as an art teacher.

Techniques Rose plans to implement into her classroom. As Rose was the teacher that personally called each of her 323 students a minimum of twice per month, promoting community was found to be the area from the professional development course that Rose planned to implement into her online classroom. She found the information relating to discussion boards to be significant toward community building.

Previously, Rose had not been putting forth a lot of effort in using the discussion board with her art class. After participating in the online course, she planned to incorporate much more of this type of asynchronous interaction in her online classroom. Rose had attempted implementing discussion boards in the past; however, she did not require participation. Based on Rose’s experience with her professional development course, she planned to immediately start incorporating more focused and mandated discussion boards into her classroom. From her participation in the professional
development course, Rose found herself identifying various strategies and techniques that
she could realistically implement into her online course. Rose, along with all of the
teachers, was provided instruction regarding techniques that could be used to promote
discourse in her online synchronous setting. These techniques, or “discourse moves” as
they are referred to in Groenke’s (2007-2008, p. 43) work include strategies that teachers
could implement into their online synchronous teaching. The “discourse moves,”
originally created by Groenke (p. 43), were presented to the online teachers in a modified
version as “techniques.”

Figure 2 is a copy of Groenke’s Discourse moves, which was the basis of the
techniques used in the online professional development course. Figure 3 is a copy of what
Rose created. Further into the discussion about this activity, Rose elaborated on the
actions that she had already began to get her kids more involved in her lessons. Figure 4
is a copy of how Rose planned to incorporate instructional strategies into a community of
practice as presented in the course during both her synchronous and asynchronous
activities.

As demonstrated in Figures 2, 3, and 4, Rose was able to personalize the general
lesson planning instruction toward the needs of her art class. The structure of the
assignments, which allowed for personalization, made the content relevant for Rose.

Rose found the copyright module, the discussion board strategies and the lesson
planning techniques to be the most relevant to her instructional needs as an online
teacher. She planned to continue to use this information during the organization and
implementation of her online instruction.
<table>
<thead>
<tr>
<th>Discourse Move</th>
<th>Definition</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentic initiation</td>
<td>Ask a question with no predetermined answer</td>
<td>Allows for range of responses; can include requests for clarification/ elaboration; signals to students teacher is interested in what they think; invites students to contribute new ideas to discussion. (Christoph &amp; Nystrand, 2001; Nystrand, 1997; Nystrand &amp; Gamoran, 1991)</td>
</tr>
<tr>
<td>Counter</td>
<td>State an opinion or ask a question containing an alternative line of argument</td>
<td>Students make greater conceptual progress during learning when they encounter and must respond to alternative perspectives; questions calling for alternative opinions promote open-ended discussion; such questions promote critical thinking and engagement in discussion. (Walker, 2004, Bridges, 1988, Chan et al, 1997; Kruger &amp; Tomasello, 1986)</td>
</tr>
<tr>
<td>Challenge</td>
<td>Ask a question to elicit a defense of a line of argument</td>
<td></td>
</tr>
<tr>
<td>Uptake</td>
<td>Inquire into something a student contributes to the discussion</td>
<td>Signifies the importance of and legitimizes student contributions, and encourages student-centered participation (Christoph &amp; Nystrand, 2001; Nystrand, 1997; Nystrand &amp; Gamoran, 1991)</td>
</tr>
<tr>
<td>Revoice</td>
<td>Reutter another's Speech through repetition, expansion, rephrasing, and reporting</td>
<td>Legitimates student contributions; creates opportunities for active student engagement in discussion process (Forman &amp; Ansell, 2002, O’Connor &amp; Michaels, 1993)</td>
</tr>
<tr>
<td>Disclose</td>
<td>Share personal feelings, ideas, motivations and underlying goals</td>
<td>Communicates sense of commitment feelings, ideas, and reciprocity to dialogue task (e.g., motivations and participants will do what they ask underlying goals others to do); communicates presence and engagement in task (Burbules, 1993; Rourke, Anderson, Garrison, &amp; Archer, 2001)</td>
</tr>
<tr>
<td>Use of vocatives</td>
<td>Use another's name in comment</td>
<td>Indicates a sense of group commitment; communicates presence and engagement in task (Rourke, Anderson, Garrison, &amp; Archer, 2001)</td>
</tr>
<tr>
<td>Request for elaboration</td>
<td>Elicit more information about a student</td>
<td>Helps to scaffold student reasoning, giving students more control over what they say; signals to students teacher is interested in what they think (Chinn, Anderson &amp; Waggoner, 2001)</td>
</tr>
</tbody>
</table>

Lesson 4 Activity

I have a lesson on cubism. I just recently taught an Illuminat lesson for this unit. In the lesson, I showed Manet's original 1863 version of Luncheon on the Grass. Then I showed Picasso's 1961 cubist version of the painting. I asked students which painting they would be more likely to hang in their home. 7 of the 9 students attending chose Manet's version. I asked why, but no one came up with any answers.

Next time I teach the lesson, I plan to follow-up better by using the following techniques:

1) Authentic Initiation: "Let's compare and contrast the Picasso and the Manet versions of Luncheon on the Grass". In addition to having the two paintings up on the whiteboard, I will also have the 7 element of art terms (line, shape, form, color, space, texture, and values).

2) Counter: If a student says they like the Manet version better, I will say, "Explain why you like it better. Try using some of the element of art terms to help back up your opinion".

3) Challenge: "How can Picasso's painting be taken seriously since he just copied Manet's?"

4) Uptake: "Sam said that both painting designs looked good. Do you think one design is better than the other?"

5) Revoice/Use of vocabularies: "Picasso's painting does look a little childish. Good point Bob. Is something looking childish a bad thing?"

6) Disclose: "If I could have one of these paintings, I would take Picasso's. Picasso was a pioneer of his time. That's what really makes me drawn to his version. He was challenging the type of art that was done for centuries and made an all new form of art. Plus, his color palette would go better in my living room!"

7) Request for Collaboration "Katie, keep going with that thought. How is the use of space different in each painting?"

Figure 3. Rose's lesson on cubism
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>What will you do while utilizing this strategy to create a community of practice?</th>
</tr>
</thead>
<tbody>
<tr>
<td>LECTURE on Elluminate</td>
<td>Social Presence: Sending an email a few hours before the lecture to remind students. Greet students personally as they arrive to the class. Allow students to greet one another as they enter the class. I like to leave the chat box open during lectures so students can feel free to write questions or comment as I go along. More students will ask a question this way instead of using the mic. I always thank them for commenting and address them by name. Cognitive presence: I use the polling option to make sure students are following along and understand the information. Teaching presence: The presentations I create are put together in a meaningful way. I try to include hooks to help keep the students interested. Students will also share things in the comment box that pertain to the lesson...which I will always take the time to discuss (as long as it is on topic).</td>
</tr>
<tr>
<td>Project Based Learning</td>
<td>Social Presence: Almost all of my assignments are PBL. I discuss the assignment with students in Elluminate. I also send weekly emails out so they know what they should be working on. Cognitive presence: Adding a self-critique to the project based learning activity would help students to think critically about their project and the outcome. Teaching presence: I always leave comments about projects in the assignment drop boxes. I believe giving feedback about the project is crucial.</td>
</tr>
<tr>
<td>Small Group Research project</td>
<td>Social Presence: I would like to do a small group project in Elluminate and use breakout rooms. Breakout rooms allow students to work together on a project. Cognitive presence: Learning how to debate and critique would be wonderful for my students. This could happen by having two groups. Group one...</td>
</tr>
</tbody>
</table>

*Figure 4. Rose’s instructional strategy assignment*
Nancy

Nancy, whose focus had been on creating a more interactive learning environment, connected to the copyright module. The information she obtained regarding the legalities behind her efforts gave her an appreciation for the course as it provided her with relevant information that she needed to know as an online teacher. The discussion board strategies and the lesson planning techniques were also found to be relevant to her instructional needs as an online teacher.

Content relevant to Nancy. Nancy, as did all of the participants, found the module on copyright laws to be particularly useful to her as an online teacher. Apparently, copyright was not addressed in Nancy’s pre-service teaching program, at least not in a manner that she was able to transfer into her online teaching position.

I really was not familiar with that what is legal as far as sharing information from the Internet and what is not legal. That I really had no information about. (NI-2, Nancy, 12/30/2008)

As supported by Nancy, copyright information is relevant to online teachers. Nancy was a math teacher who was very focused on incorporating manipulatives into her classroom. Most, if not all, of these manipulatives are found online. Nancy’s ability to identify which manipulatives she can and cannot borrow would be extremely useful to her as an online teacher as her “evidence” will be displayed for all to see at anytime.

Nancy was also pleased with her opportunity to learn about email and discussion board etiquette. She much desired to learn about ways where she could connect to her students.
I think that personal touch would help the students. I had one student write me an email. Thanks for thinking of me more than just my ID number in the classroom. You know making it more personal, knowing about who they are. (NI-2, Nancy, 12/30/2008)

Email and discussion board etiquette was addressed in detail during the teachers’ professional development course. “How a student interprets an email may be completely different than how a teacher intended,” was a statement that Nancy made prior to her exposure to her online course and was appreciative of her opportunity to learn more about online communication.

Techniques Nancy plans to implement into her classroom. Nancy stated on multiple occasions that she would like to increase community in her classroom. With Nancy’s concern for student engagement, she was hopeful that promoting community would help her to increase her students’ participation.

Instruction regarding the building of a community of practice was included in the online professional development course. Nancy indicated that she was not thinking about a community of practice prior to her professional development course, but planned to continue to identify ways that would help her students interact with other students, herself, and the class content. As an online teacher, Nancy’s students work at different times and from different locations. To help in building a community inside of her own classroom, Nancy would like to implement the discussion boards that she learned about and experienced during her online professional development course.
One thing that I don’t use right now is a discussion board. I don’t use that, and I think the discussion board lesson was a good lesson to use as just one added activity to add into my classroom to open up communication between students and myself. (NI-2, Nancy, 12/30/2008)

Nancy’s need for community and communication made those modules from the course content relevant to her. She had the challenge of working with students who have already failed the tenth grade at least once, and some were failing again. Nancy was happy to learn new and practical strategies that she could implement into her course immediately that may assist her in promoting her students participation.

Figure 5 is a sample of Nancy’s Instructional Strategy chart demonstrating how she indicated her potential for incorporating the community of learners into her classroom. The self-directed portion of this assignment was new to Nancy. During her interview, Nancy mentioned that she had not previously worked on creating this type of instructional strategy.

Regarding Nancy’s instruction on the lesson planning techniques that were based on Groenke’s “discourse moves” (2007-2008, p. 43; see Figure 2). Nancy stated that she had not attempted the authentic initiation; however, she did use the challenge with her students. To better understand her thought processes, Nancy was asked to further explain the components of the lesson plan as she did not highlight how she would use the techniques for clarity of her understanding of this module. Nancy had not incorporated any form of authentic initiation, but planned to as a result of her professional
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>What will you do while utilizing this strategy to create a community of practice?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative Learning</td>
<td>Social Presence: In Illuminate, encourage student-student discussions.</td>
</tr>
<tr>
<td></td>
<td>Cognitive presence: Allowing students work through problems together with me moderating in Illuminate. Letting them discuss and compare ways to solve problems.</td>
</tr>
<tr>
<td></td>
<td>Teaching presence: Teach basic parts of the lesson and advise during the collaboration.</td>
</tr>
<tr>
<td>Lecture</td>
<td>Social Presence: Ask a few personal questions about the students. Ask about their lives.</td>
</tr>
<tr>
<td></td>
<td>Cognitive presence: During the lecture allow students to explore the material and solve some problems with guidance.</td>
</tr>
<tr>
<td></td>
<td>Teaching presence: Direct instruction in Illuminate.</td>
</tr>
<tr>
<td>Self-directed</td>
<td>Social Presence: Create a discussion board to start students thinking about the assignments.</td>
</tr>
<tr>
<td></td>
<td>Cognitive presence: Insert manipulative url's to help understand the material. Setting up meaningful &quot;life&quot; assignments.</td>
</tr>
<tr>
<td></td>
<td>Teaching presence: Designing the material and grading the assignments.</td>
</tr>
</tbody>
</table>

Figure 5. Nancy’s instructional strategy assignment
The following is an excerpt from Nancy explaining how she will use authentic initiation:

I am going to redo the same exact class starting in a couple weeks. I’ve already gone through it once. I think I will know each lesson pretty well that I can maybe ask questions about the lesson before they jump in because I’m not really sure what I will be teaching on any given day. So a student might come in and want help on lesson 12 or lesson 23 so it’s not like I can really plan ahead and look at the lesson. But I think now that I’ve gone through them one time I really know what they are about, and I can really start out the lesson with a couple questions just to see where they are, where they stand and what they understand. (NI-2, Nancy, 12/30/2008)

Nancy was able to articulate the techniques that she was planning to attempt inside of her classroom. She was hesitant to try anything new with her students who only had two weeks remaining in the semester. Instead, Nancy planned to revisit her own content and reflect upon how she could integrate her new knowledge of lesson planning.

Findings from Nancy were very similar to those of Rose. She found the copyright module, the discussion board strategies and the lesson planning techniques all to be relevant to her instructional needs as an online teacher.

Bill

During the initial interview, Bill shared that he would mostly like to receive professional development in the area of communication. Bill’s aspiration to become a better online communicator was evident throughout the professional development course.
He was very active in communicating with the other participants and the course facilitator. Bill was actually the most active participant within the discussion boards. He always responded to the facilitator and to the other teachers very thoroughly.

*Content relevant to Bill.* When Bill was asked to explain which component of his professional development he found to be the most influential, he did not hesitate in his answer. While Bill did value the communication aspects of the online course, he most valued the exposure to the exemplary classroom that he was able to visit. Organization of online courses was something that immediately resonated with Bill. During the professional development course, the participants were asked to navigate through an exemplary lesson. Bill appreciated the opportunity to learn about the instructional design of web pages and the ability to be able to see how others organized their online lessons and courses. He found the online classroom example displayed in the course visually appealing and easily navigable.

Having the opportunity to view the organization of other classrooms directly influenced Bill in that he immediately began changing the appearance of his own classroom to imitate the elements that would make his course easier to navigate for his students.

They had large icons in the center where ours is more of a directory. Seeing different examples makes me realize that it’s probably easier the way that they do it. Maybe for our students, the way it’s organized now, it’s maybe a bit more confusing or detailed than what they need. (BI-2, Bill, 01/06/2009)
Before the course had even ended, Bill began creating the large icons and changing the
navigation of his online classroom.

*Techniques Bill plans to implement into his classroom.* As Bill mentioned from
the first day of the study, he was interested in finding ways to increase communication
with his students. During Bill’s professional development course, he was exposed to
activities asking him to reflect upon ways that he could create a community within his
classroom. Bill was pleased with the information he was provided with concerning email
and discussion board etiquette. He was reflective on how he presented himself through
email and discussion board communications and was more aware of the implications that
his written words could unintentionally provide. He did not wait for the course to end to
begin examining his written communication. Bill felt that the module on communication
provided him with practical knowledge that he could implement immediately.

From an online course standpoint, Bill also planned to implement the techniques
he learned from the modules on promoting community and lesson planning. These
 techniques for promoting community addressed in the course were teaching presence,
social presence, and cognitive presence. Bill indicated that he was working toward each
 of these concepts, but did not have a name for them. He mentioned that he had read a
book during his pre-service program that included a framework for a community of
learners. However, his inability to name or articulate the concepts prior to his
professional development course was evidence that he needed more than one book to
develop his understanding of this phenomenon. Bill also indicated that his involvement
with this activity justified in his mind the amount of time he was spending on student
feedback and grading. Bill planned to attempt to be more thorough in his lesson planning to ensure that he could establish a teaching presence, social presence, and cognitive presence by continuously evaluating himself to make certain that a community of practice would be established to the best of his ability.

Bill was also asked to discuss his online lessons and review the components of the lesson plan as developed for the online professional development course. He was given the same template to organize his lesson planning techniques as the other participants (see Figure 2). These techniques were based on Groenke’s “discourse moves” (2007-2008, p. 43). Figure 6 illustrates Bill’s lesson plan activity. Bill explained his interpretation of how he used the techniques suggested.

The terms were different. For example, if someone said I was using uptake in this lesson, I would probably give a strange look. I was using these things but I wasn’t aware of the terms so I wasn’t able to consider. Like the challenge of course I would use but I think a lot of them are just common teaching things that we all use commonly. (BI-2, Bill, 01/06/2009)

Based on Bill’s excerpt, he was performing many of the techniques, aka “discourse moves” (Groenke, 2007-2008), unknowingly. Since he did not have a strong foundation of online teaching prior to his current position or professional development course, he was simply going through the motions without an awareness of what he was hoping to accomplish and why he was using the methods of instruction that he had selected.

Bill acknowledged that he did not use all of the techniques presented from the professional development course and planned to use them as he deemed appropriate. The
Lesson Goals:

The main goals of the lesson are to review student research projects, practice speaking skills, and develop techniques to conduct interviews. In this lesson, students present their research projects and field questions from peers. The teacher facilitates discussion (chat) after each presentation.

Lesson Plan:

Entry:

Students are presented with a link to an Illuminate session through email. The email presents the students with an overview of the lesson and a supply list of what to bring to the session. When students arrive at the teacher tests the software and student access and presents a preview of the lesson. Students are provided with a script of suggested questions, but are required to ask at least one original question when conducting the interview.

Development:

After the first presentation, the teacher models the interview process for the students. After subsequent presentations, the students will conduct the interviews, but the teacher will supervise and add any additional questions as needed.

Closure:

After 30 minutes, the lesson will end, and students will be reminded to attend tomorrow’s session. After the lesson, the teacher will send messages to all in attendance complimenting participation.

Lesson Evaluation:

Chat will be facilitated and supervised by the teacher. The students will be assigned a specific role in the lesson (either presenter or interviewer) and will be monitored for quality participation by the teacher. The teacher will maintain the fidelity of participation by using the variety of communications: (1) authentic initiation, (2) counter challenge, (3) uptake, (4) respec (5) use of vocatives, (6) disclose and (7) request for elaboration) during the lesson.

Figure 6. Bill’s lesson plan assignment
following excerpts represent Bill’s explanation of what he did and did not plan to use in his online classroom beginning with the techniques Bill did plan to use.

I would definitely tailor the lessons based on these ideas. Like an idea using disclosed. I think it’s definitely easy in an English class to do. Like your personal reaction to a text. That’s an easy one I kind of use already, but whereas something like an uptake would be difficult. How much do they contribute to a discussion? Well if you are working with a single person it’s kind of difficult but I would definitely tailor as many as I could, but in my situation a lot of times I individually tailor. I guess what I’m trying to say is a lot of techniques are tailored to a group situation where as a lot of the encounters I have with students are individual where very rarely do I get 2, 3, or 4 people in Elluminate. (BI-2, Bill, 01/06/2009)

Following Bill’s plans to incorporate certain techniques or “discourse moves” (Groenke, 2007-2008) from his class are those that he did not view as relevant.

No, no, no definitely not. Like authentic initiation, no because sometimes if a kid comes to me for help, it’s difficult to do that. A lot of the things I do when I’m teaching are not as organized and as nicely created. A lot of it is just, I need help with this, ok here we go. (BI-2, Bill, 01/06/2009)

If Bill incorporated more planned synchronous lessons he may be able to use more of the techniques such as authentic initiation. Bill used his synchronous technology to provide an “open” door where kids could enter at any time. He also needed to identify ways to
offer more planned instruction that would allow him to build in the techniques that would assist him in reaching his students in a more purposeful manner.

Findings from Bill looked a little different then those from Rose, Nancy, and Jackie. While he did find the copyright module, the discussion board strategies and the lesson planning techniques all to be relevant to his instructional needs as an online teacher, he most of all valued the ability to “walk” through another online teacher’s classroom where he was able to learn and change from exposure to asynchronous modeling.

**Jackie**

Jackie had identified her motto as “Why bother learning something if you don’t use it?” She made it known that she was in need of assistance in improving her students’ engagement rate and wanted professional development in understanding the fundamental differences between face-to-face and online teaching. While the professional development course was not designed specifically to focus on Jackie’s concerns, she did find information that was relevant to her needs. As the data pertaining to Jackie was collected and analyzed, it became evident that the information presented through professional development should be relevant to the online teachers’ needs through (a) content that was relevant to Jackie, and (b) the techniques Jackie planned to implement in her online classroom.

*Content relevant to Jackie.* When Jackie was asked to discuss the most influential components of her professional development course she immediately mentioned copyright laws. As an online teacher who strived to include more visual and auditory components, Jackie had searched the Internet for exciting ideas to incorporate into her
online classroom. As a result of her professional development, Jackie was soon questioning other resources that she had been using to make her lessons more engaging and interactive for her students. For example, Jackie incorporated School House Rock videos into her live Elluminate sessions to add some auditory stimulation. She immediately became concerned that the videos that she was using may need to be removed due to a potential copyright violation. The information Jackie learned regarding copyright was relevant to her as it provided her with critical information that she needed to abide by the law and forced her to re-examine her content for such violations.

Techniques Jackie plans to implement into her classroom. Jackie had been trying to find ways to promote community building in her online classroom since her first day as an online teacher. She indicated that she struggled with this concept during her online professional development course. Prior to her exposure to the professional development content, she was not thinking of a community of learners in regards to her students; however, she was thinking about this concept as it related to her working collaboratively with other teachers. Jackie used her time with this module to reflect on her current learning environment and to identify all of the possibilities that she would be able to use to incorporate community building into her own classroom.

I know that I have to do at least some form of collaboration work with my peers. But when it came to the students I always feel like they are so isolated that it never occurred to me that I should have them working together. Now I know better. I actually have several students that work so much better in group settings, in Elluminate because they’re afraid to ask the questions even if it’s just over the
phone. But if they hear one of their peers ask a question, oh yeah that . . . [laugh].

(JI-2, Jackie, 01/09/2009)

As this concept was new to Jackie, she planned to revisit the module as it would continue to be accessible to her through her online professional development classroom. Jackie was intimidated by the “deadline” ahead of her and felt that she could have been more reflective in her activities if she was not rushed. Jackie had a list of ideas that she hoped to put into practice such as a virtual coffee house promoting peer feedback. Her struggles stemmed from her anxiety of having to come up with ideas that she had never thought possible before. Figure 7 is an example of how Jackie indicated that she would incorporate the community of learners into her classroom.

As this concept was foreign to Jackie, she was thoughtful of her struggle and found herself needing to revisit the material over an extended period of time before she could really implement her ideas into her classroom. Jackie was also mindful of her students’ capacity to incorporate anything new into their daily routines and had decided to remain consistent with her current practices until the beginning of a new semester, where she would have new students and could set her expectations from the start. Jackie was also one who personally leaned toward consistency and stability as she struggled with this activity that presented her with a new method of teaching. Jackie’s activity forced her to think outside of her area of comfort, which is not new to online students; however, could account for their lack of enthusiasm and engagement.

As with all of the participants, Jackie was asked to take this lesson a step further and create a lesson plan that included “discourse motives” based on Groenke’s work
<table>
<thead>
<tr>
<th>Instructional Strategy</th>
<th>What will you do while utilizing this strategy to create a community of practice?</th>
</tr>
</thead>
</table>
| Group Problem Solving  | Social Presence: Give supervised time in Elluminate to work as a team in live discussion.  
  Cognitive presence: Students would work through the project from the initial inquiry through to a collective answer.  
  Teaching presence: Stand by as a resource in Elluminate and elsewhere without taking over and answering the questions for them. Guide gently where able. |
| Self Directed Learning | Social Presence: Have a “virtual coffee house” where students would share their work with others and received peer feedback.  
  Cognitive presence: Students would create their own questions to answer in Inquiry Based Learning style.  
  Teaching presence: Create a basic template to assist student through process, provide regular feedback. |
| Apprenticeship         | Social Presence: Students would have direct interaction with an adult in a field of their choice, could also have small group reflections with those in similar fields.  
  Cognitive presence: Mentor would guide student through problem solving, student would provide weekly reflections of process.  
  Teaching presence: Mentor and teacher would work as co-educators. |

*Figure 7. Jackie’s instructional strategy assignment*
(2007-2008). These motives were presented as techniques in the online professional development course (see Table 2). As identified with each participant, Figure 8 illustrates the lesson plan that Jackie created as a result of her professional development course. Jackie stated that she planned to attempt this lesson with her online students.

Jackie thoroughly enjoyed this activity because it allowed her to be creative while incorporating ideas that were not completely new or unfamiliar to her. This lesson also provided Jackie with the ability to create a personal connection to her father. This ability to create emotion during learning made the content meaningful, which motivated her to make a personal connection with the content.

I based my lesson on something very similar to what my dad, who was a brick-and-mortar history teacher for most of my life. He came up with something where the students would work in groups and uh create um something similar to the engaging lights of World War 1. But, I said how can I adapt this to government. Well, let’s create a bill of rights for the students, and I just completely improvised how this could work within an e-school parameter. And I really had a lot of fun with it making sure this is how we can accommodate students, this is how our non-readers can help, this is how our non-writers can work and this is how we can make it meaningful because we can eventually draft something and present it as a class with representatives to our superintendent. (JI-2, Jackie, 01/09/2009)
Lesson 4 Activity

If you recall from the introduction to this section chats are a good way to build community, create social presence, and organize group activities in a short timeframe. For this activity write a lesson plan for how you could use a chat to support student learning in one of your classes.

Be certain to attend to how you will specify expectations, assign roles and responsibilities, establish group size and group students, grade students participation in the chat, establish frequency of posts during the chat, define the expectations for substantive participation, maintain netiquette, and facilitate student interaction.

How will you accommodate students that don’t have good keyboarding skills. In your lesson plan write a number possible posts that you could make during the chat that show 1) authentic initiation 2) counter 3) challenge 4) uptake 5) revoice 6) use of vocatives 7) disclose and 8) request for elaboration.

The lesson will be for the student to act as a legislative body and create an [removed for anonymity] Bill of Student Rights. The class will be divided into ten groups and will each be responsible for presenting two bills for consideration, each covering a different aspect of student life at [removed for anonymity].

Each group will have their own discussion board where they will work as a team drafting ideas. Quality of ideas is more important than quality of writing in the early stages, but each group member must participate in the work.

In addition, moderated time on Elluminate will be available each evening for students to work together in breakout rooms. This will allow for spoken debate via headsets as well as written discussion. Students will hand in a peer review sheet documenting how they felt the group worked together.

The presentations would be conducted in a joint session of Elluminate with each group selecting representatives to explain why the ideas should be included. The votes could either be made immediately using polling or later using emailed ballots after a recorded session would be made available to those unable to attend. The results would be made available to the class and possibly presented to Administration by the students.

Figure 8. Jackie’s lesson plan: Bill of Student Rights assignment
Jackie did not pinpoint each technique; however, she instead created a lesson that was vague enough to allow for the techniques or “discourse moves” (Groenke 2007-2008, p. 43), to present themselves during the launch of the activity. Jackie was also asked to explain which of these techniques she was using prior to her professional development.

I definitely used “request for elaboration.” I did challenge them on things, but it was particularly in Elluminate and I usually have the same 3 kids in there. So those kids had a bang up semester of education. (JI-2, Jackie, 01/09/2009)

By Jackie’s choice of the words “bang up semester of education” it is apparent that she placed an emphasis on her synchronous teaching. The lesson plan templates that were presented did correlate to the synchronous sessions that Jackie valued. However, Jackie had more than 3 students; she will have to either find additional ways to increase her synchronous participation or find techniques that would enable her to transfer her strategies into more of her asynchronous content.

Findings from Jackie surfaced much like those of Rose, Nancy and Bill in that she found the copyright module and the lesson planning techniques all to be relevant to her instructional needs as an online teacher. Unlike the other participants, Jackie also experienced a personal connection to the lesson planning content as she participated in an activity that reminded her of her father. This connection was the basis of her strong appreciation for the lesson and her definite plans to implement it into her online classroom.
Summary

Based on the data from this section, the need for content relevant to online teachers’ specific needs came from: (a) all of the participants’ appreciation regarding the relevance of instruction on copyright; (b) all of the participants’ appreciation regarding the relevance of instruction on building community; and (c) Bill’s appreciation of receiving asynchronous modeling.

Appreciation of copyright surfaced from each of the participants as they all search the Internet for enhancements to add to their online classrooms. Knowing the laws of copyright and learning how to obtain appropriate material was relevant and valuable to all of the online teachers. They had the responsibility of transparency in all that they did and said in their online environment. As there are no “closed doors” in a virtual school setting, online teachers must be especially considerate of copyright laws.

As student engagement was the primary concern of online teachers, they felt especially connected to the community building activities that were part of their online professional development course. Their ability to engage in practical applications regarding making connections to their students in an online environment was relevant to them as all of the participants completed the course with multiple strategies that they planned to attempt in their online teaching.

Bill provided additional support that was not identified with the other participants. His appreciation of exploring another online teacher’s classroom was influential to him as he immediately began reflecting upon and changing his own. It is referred to as
asynchronous modeling in this research as Bill experienced modeling that was not live, but online in an asynchronous setting.

*Online Instructional Delivery Should Include a Variety of Presentation Techniques*

In addition to the relevance of the professional development content for online teachers, the data revealed that the presentation should include a variety of techniques in the instructional delivery.

Data from each of the participants was collected, analyzed, synthesized and found significance behind the value in incorporating various media to address a variety of learning styles and preferences. This section concludes with a summary that integrates the findings from all of the participants supporting that online teachers want online professional development to be offered through a variety of presentation techniques.

*Rose*

Data that were collected from Rose’s participation in this study indicated that she wanted to receive professional development offered through a variety of techniques and designed to meet her learning style preference. The data was organized according to (a) the environment in which instructional delivery took place and (b) the connections to her learning style preference.

*Instructional delivery.* Prior to the online professional development course, the participants were asked to describe the professional development environment of which they would like to take part. Below is an excerpt from Rose:

Well, since art is so specialized it would be kind of hard to have it in a group professional development. So I was thinking more of somebody who was familiar
with the prepping for the OGT. If they could sit down with me and the other art
teacher and talk about different ideas to incorporate OGT type things in the class.

(RI-1, Rose, 11/21/2008)

Rose’s response indicated that she preferred a face-to-face component in her professional
development. She wanted a person to “sit down” and explain art specific concepts to her.
Her preference for having a face-to-face component within her professional development
course is an indication that she was not entirely comfortable with learning exclusively
online.

Rose then discussed another type of delivery that she valued, online. At that point,
Rose discussed how she enjoyed learning through the software she used to teach with.
Below is Rose’s explanation indicating the value she placed on learning in her own
online environment.

I just had a Praxis III meeting with all the first year teachers on Elluminate and
that was a neat experience. That was kind of what I was hoping I would have
gotten a little early on. Just being in a class with about 20 other teachers, having a
lesson, and we got to break up in groups and do an activity. And I got to see all
the things that Elluminate can do. I’m still not quite sure how to set up groups in
Elluminate, but knowing that you can do that group work in there, that’s great. So
that would be something I’d be interested in seeing in an online lesson, actually
being able to go in a classroom in an online environment and learning with other
students just to see how it could go. (RI-1, Rose, 11/21/2008)
Rose identified her learning through the live software she used to teach. By participating in the entry year teacher meeting, she was able to watch the more experienced teachers use the software. Even more effective, was her ability to participate as a student. This allowed Rose to experience how her students learn while she engaged in using some of the more advanced features of which she was unaware.

Interestingly, Rose did not enjoy the Elluminate session that she participated in during the online course. When asked to explain why her participation in the discussion board was much more active than in her live Elluminate session, she stated that the live session was not structured enough for her. Rose preferred the discussion board as she had the opportunity to reflect upon the questions presented and respond in a more thoughtful manner. It was evident from her preference and participation in Elluminate in one situation and her lack of enthusiasm for it another that offering both modes of communication would be the most beneficial for delivery of online instruction.

*Connections to Rose’s learning style preference.* Rose’s learning preference stemmed from her enjoyment with videos. Based on an assignment from the professional development course, Rose identified herself as a visual learner. Throughout the online professional development course, the author of the course implemented videos of other online teachers providing tips and advice to new teachers that tied into the module objectives. Most of all, Rose enjoyed watching those videos of her online teacher colleagues and expressed her gratitude as she explained that she found those videos to be the most influential component of her online professional development course.
Rose demonstrated a need for balance as she preferred face-to-face and online learning, and she wanted to take part in both synchronous and asynchronous discussions. Rose also indicated that she preferred to have her content delivered according to her learning style. Rose identified herself as a visual learner and found the videos to be the most engaging aspect of her online professional development course.

**Nancy**

Data that were collected from Nancy’s participation in this study indicated that she also wanted to receive professional development offered through a variety of techniques and designed to meet her learning style preference. The data was organized according to (a) the environment in which instructional delivery took place and (b) the connections to her learning style preference.

*Instructional delivery.* Nancy was asked to describe her optimal professional development environment. Her preferences included tutorials, live help and a balance of synchronous and asynchronous options. Nancy explained that she would like to see more tutorials that teach her step by step exactly how to use web designing tools, but at the same time she acknowledged her own needs to connect with a “live” person and felt that professional development opportunities should include some type of facilitation for teachers to turn toward when questions arise. Nancy desired more of a personal touch in her professional development and stated that she finds comfort in knowing that someone is available to answer her questions.

As community building was important to Nancy, she really enjoyed her synchronous opportunity, which enabled her to find a sense of community within the
professional coursework; yet, she also appreciated the balance that was provided to her from the asynchronous content. As an adult with a husband, children and a full time job, it was convenient for Nancy to take ownership of her learning by setting her own schedule and time table.

Connections to Nancy’s learning style preference. Through an assignment in her professional development course, Nancy identified herself as a visual/non-auditory learner. As a math teacher, she is also logical and kinesthetic. Due to her learning style preferences, Nancy enjoyed the format and navigation of the professional development course. Specifically, Nancy appreciated the varied assessments and the combination of videos, text, and images to keep her interested and connected to the content. When asked to describe her opinion of the course videos, Nancy explained that she felt they were useful due to the information that was presented in a format other than text. She especially appreciated the “hints” the videos provided her as to what she would be able to expect from the module. Below is Nancy’s response:

They were useful; one reason is I look at what I need to know for the assessment in particular. Or if you build them in, but I think knowing what to look for or specifically saying write down these certain facts as you watch the video. I think that was effective because if I’m writing down what the certain facts and what I need to learn out of this video; I think that made it more effective. (NI-2, Nancy, 12/30/2008)
Nancy was also provided with written objectives, but there was no indication that they had any influence on her. Receiving information through video was something that she was able to remember, which made her course more effective.

The findings from Nancy were significantly similar to those of Rose. She demonstrated a need for balance in both synchronous and asynchronous discussions and she preferred to have her content delivered according to her learning style. Nancy primarily identified herself as a visual learner and found the videos to be the most influential aspect of her online professional development course delivery.

Bill

The data that were collected Bill indicated that he wanted to receive professional development offered through a variety of techniques and designed to meet his learning style preference. The data were organized according to (a) the environment in which instructional delivery took place and (b) the connections to his learning style preference. Bill’s participation in this study demonstrated that his optimal professional development design would include face-to-face facilitation, a balance between synchronous and asynchronous communication, and instruction that meets his learning style needs.

**Instructional delivery.** Bill was asked to describe his optimal professional development environment. He strongly preferred face-to-face instruction. This was not surprising as Bill referred to himself as the face-to-face teacher, teaching online.

I think meeting in person is nice because a lot of times when you’re online you can’t really feed off of the group as a whole and especially if you’re meeting a large group. Elluminate is good for meetings, but it’s not as good if you have the
entire group bouncing ideas off of each other. So I think the best place to have that would be at a professional development meeting where it was specifically like a department meeting where ideas could be kind of presented and a few hours could be spent strictly on discussing what works, what didn’t work, really just an open-minded communication to share good ideas. (BI-1, Bill, 11/20/2008)

It was evident that Bill had not yet found the synchronous tool that met his learning style needs and preferences, and had not yet mastered the skills required to utilize the synchronous tools that would allow him to learn online as effectively as he would face-to-face. For Bill, adding a face-to-face element to professional development was a crucial element of design.

Although Bill felt strongly about the face-to-face component, he was very willing and open to participate in this professional development course. He was the most active member in the discussion boards and willing to contribute to the online synchronous session also. Due to his willingness and openness to discuss his experience, he was asked to specifically to reflect upon his experience with synchronous versus asynchronous content.

Well, in the Elluminate session there is certainly more accountability. Just by having to present to your peers you have that accountability and that kind of knowledge that they’re going to be listening to you and you can’t just rush through it. It makes it more worthwhile and requires you to take more from it. So I think it was more worthwhile. (BI-2, Bill, 01/06/2009)
He also provided his viewpoint on the asynchronous communication using the discussion boards.

Yeah, I think discussion board’s are really important and I think they should be used a lot more. I think they are important and I like using them. I think they are really worthwhile because you can really actively discuss with your peers. You can pull apart the information if you do it correctly and yeah, and I think it helps with community which is important. (BI-2, Bill, 01/06/2009)

*Connections to Bill’s learning style preference.* Through an assignment in his professional development course, Bill identified his learning style as visual. He enjoyed the videos presented in the course and felt they were a nice way to introduce each section. The videos were found to appeal to Bill’s visual needs, which increased his curiosity as to what he would learn from the rest of the module. His experience with videos was positive as he mentioned that he wanted to include them into his own classroom once he developed the necessary knowledge and ability to do so.

The findings from Bill were significantly similar to those of Rose and Nancy. As with Rose, Bill indicated the need to incorporate a face-to-face component within his professional development course. The findings regarding Bill’s need for balance in both synchronous and asynchronous delivery and his preference to have his content delivered according to his learning style was found to be consistent with both Rose and Nancy.

*Jackie*

The data that were collected indicated that Jackie wanted to receive professional development offered through a variety of techniques and designed to meet her learning
style preference. The data were organized according to (a) the environment in which instructional delivery took place and (b) the connections to her learning style preference. The support regarding the instructional delivery from Jackie’s participation in this study demonstrated that her optimal professional development would include multi-media presentations, synchronous delivery, clear goals and objectives, and instruction delivered according to her learning style needs.

*Instructional delivery.* Jackie was asked to describe her desired professional development environment. Unlike the others, Jackie did not mention needing a human facilitator, or face-to-face meetings. Instead Jackie would like to see multiple types of media used online.

Definitely keep it interactive, multisensory. Not just reading on a screen. Have some audio in there; have even if you just throw in a gif file every now and then that has something flashing or moving back and forth. Just reading text reading text and answering questions that is just death. And it will actually stop us from engaging. (JI-2, Jackie, 01/09/2009).

Jackie had been focusing on adding audio and video components into her own lessons and placed much regard on those possibilities for delivery. Jackie was an artistic person who liked to remain active.

Based on Jackie’s delay in turning in her assignments and her lack of participation in the discussion boards, it was evident that Jackie did not especially appreciate the author’s design of the professional development course. She was forthcoming regarding the elements that she found unsatisfactory. Jackie found the few grammatical and syntax
errors to be especially distracting. Jackie also shared her feelings regarding the navigation, instructional design, and layout of the professional development course. Jackie found that the course was missing clear directions and objectives.

Going to the other teachers’ online site was interesting; however, I wish it would have been more guided. I was worried that I was going to have to take her biology class. What am I supposed to do besides look at it? Am I supposed to do an experiment, oh my God? If that were more guided, I would have been calmer about that. (JI-2, Jackie, 01/09/2009).

Jackie felt removed from the content in the course as it was not visually appealing to her. She was annoyed by grammatical errors and unsure of what was expected of her. She felt that the content should have been organized more effectively to meet her needs.

As were all of the participants, Jackie was also asked to reflect upon her experience with the synchronous and asynchronous communication opportunities that were provided to her. Jackie was not active with the discussion boards; however, she was very active in her synchronous session.

Through both means of communication, Jackie was given the opportunity to interact with her peers online. Discussion boards are often used as a way to create social presence in asynchronous online environments. Jackie’s participation rate was very low in the discussion board activities. She only posted once on each of the first three forums, and not at all on the last two. Her explanation for her lack of engagement during the discussion board sessions was that she did not enjoy the abstract directions. She thought
the discussions should have been much more guided and directed than she saw in the course. She had a more positive perspective in regards to her synchronous session.

**Connections to Jackie’s learning style preference.** Through an assignment in her professional development course, Jackie identified her learning style as auditory. Jackie also found the synchronous portion of the professional development session to be very useful; she valued the chance to engage in a conversation that included audio software. Jackie’s learning style preference as auditory most likely contributed to her lack of engagement with the discussion boards, which are text based.

Jackie also valued the videos of her peers. As the videos provided audio instruction as opposed to reading text, Jackie found the videos to be more engaging, which was the part of the course that she found most beneficial.

The findings from Jackie were similar to those of Rose, Nancy and Bill in that she wanted instruction to be delivered in a manner that met her learning style preference. However, unique to Jackie was that she placed a much higher value on synchronous delivery over asynchronous delivery and needed clear goals and objectives to find the course effective.

**Summary**

Currently, there are many options available. Professional development can be delivered completely online in an asynchronous form, online through synchronous software, face-to-face, through telecommunications, through correspondence or a combination of any two or more methods of delivery, also referred to as a hybrid. Based on the findings presented in this section, the need for online professional development to
be delivered through a variety of presentation techniques was evident from: (a) all of the participants’ desire to have their learning styles met; (b) through Jackie’s preference for synchronous communication (c) Rose and Bill’s need to incorporate face-to-face instruction, (d) Jackie’s preference for auditory stimulation, and (e) the preference of video by Rose, Nancy, Bill, and Jackie.

Instruction delivered through a variety of presentation techniques will make it easier for a course to reach more learners at once by offering multiple media and options to engage in the course. Although most of the participants had a visual preference and all enjoyed the incorporation of video. Jackie, who was the least engaged, had an auditory need that was not completely met through the delivery of the course. To further support this finding, Rose and Bill preferred a blended course design and Nancy preferred an online course with a live facilitator. Jackie wanted more online instruction through synchronous software and Rose, Nancy, and Bill preferred a balance of both.

Supplemental Finding

Online teachers will first turn to their peers when in need of help.

Although this finding did not contribute to the research questions for this study, the need for peer interaction was found to be significant to each of the participants regarding their current method for obtaining professional help when needed. Each one of the online teacher participants stated that their primary method for obtaining the professional help concerning their day-to-day questions and concerns was addressed through peer interaction. This peer interaction justifies the need for the mentoring of online teachers. Effective mentoring will increase the mentee’s knowledge and skill while
promoting leadership and communication in the mentor (iNACOL, 2008). When faced with the most difficult of tasks, Bill, Jackie, and Rose stated that they look specifically to the more experienced teachers for help. They had found those who had been working in the field to be most valuable to them when they were in need of new ideas or were confronted with an unfamiliar situation. Nancy stated that she felt comfortable asking any member of her department for assistance. In general, new teachers feel anxiety over curriculum, instruction, lesson planning, assessing students, classroom management, school policies, parents, and emotions (Portner, 2003).

For example, Jackie, who also turned to her colleagues for assistance with technology, has a team teacher that was also her assigned mentor. The mentor/mentee relationship was established to enable the new teachers to learn from the experience of the veteran teachers. Jackie was unique in that she also felt comfortable turning to her principal for assistance with student engagement related issues. The principal in this case had created an open environment where Jackie could openly discuss her online classroom concerns without fear of repercussions. This situation is two fold as the principal can play an active role in shaping the ability of this new teacher to teach online and the teacher can openly and honestly seek assistance from the person who will evaluate her. The notion of new teachers first turning to their peers was also reinforced in the literature. Research indicates that new online faculty found one-to-one mentoring to be the most valuable form of professional learning and the one-to-one development time with the instructional designer as a close second (Taylor & McQuiggan, 2008).
CHAPTER V

CONCLUSIONS AND IMPLICATIONS

So What Do Online Teachers Want From an Online Professional Development Course?

This chapter presents a summary of this research study along with important conclusions, theoretical and practical implications, and recommendations for future research.

Conclusions

This research study was designed as a basic interpretive qualitative study that sought to identify (a) the online teachers’ professional development goals, and (b) the online teachers preferred instructional design elements for an online professional development course. This research concluded with four findings.

Finding 1: The Primary Concern of Online Teachers is Student Engagement

All of the teacher participants were found to have the primary goal of wanting to increase student engagement. Data collected from interviews, course assignments and discussion board transcripts were indicative of the importance the online teachers placed on student engagement. All of the participants also connected student engagement as the motive behind their communication and classroom design efforts. They valued engagement to the extent of sacrificing their own personal and family time to implement new strategies that they hoped would increase their student engagement rates.

Jackie, for example spent many hours per night creating interactive Power Point® Presentations that she hoped would make her students want to participate in her class.
Jackie also shared her frustration by stating that she was disheartened by her efforts that had not been acknowledged by her students. Regardless of her personal sacrifices, only a handful of students participated in her synchronous sessions. Bill shared Jackie’s frustration as he identified student engagement as the most difficult part of his job. All of the participants were planning to utilize their online classrooms in IQity to increase student engagement. Nancy was attempting to learn how to add virtual manipulatives, Rose was adding student spotlight pages, Jackie was creating audio lessons for her students to download and Bill was redesigning his online classroom. All of the participants mentioned that they had hoped to find ways to increase student engagement in their online classrooms.

Student Engagement also surfaced through course assignments. For example, the teachers completed an assignment requiring them to create a community of learners within their online classrooms. All of the teachers made a connection to this content and commented that they were hoping and planning to build community in their online classrooms as they identified ways in which it could effect student engagement. Throughout this study, it was apparent that online professional development that offers strategies devoted specifically to identifying ways to increase student engagement was desired and would be appreciated by the online teacher participants. This finding was based on (a) concerns the online teachers had regarding student engagement and learning, (b) the time and effort the teachers exhibited in promoting communication to increase student engagement, and (c) the teachers’ identification of student engagement being a principal challenge in online teaching, and (d) the teachers’ interest in instructional
design for the purpose of increasing student engagement. The concern of student engagement is not specific to these teachers. A national survey that included 884 teachers from virtual schools, supplemental online programs and brick and mortar programs that offer online courses found student responsibility to be a top concern of the online teachers. (Rice et al., 2008). Student engagement to the teacher participants in this research study is student responsibility in that the students were not acting as though they were responsible for their learning, because they were not participating in their classes.

**Finding 2: The Teachers Wanted to Increase Their Knowledge and Abilities in Using Technology**

As presented in Chapter IV of this study, each participant mentioned his or her student engagement rate as his or her major concern. Since online teachers must use technology to exhibit their teaching presence, it is imperative that they have the knowledge and ability to use all of the available tools to teach their students. The teacher participants in this study felt they could use the majority of the tools to some extent; however, each of the participants identified technical skills that they had not fully developed, and all of them were lacking the knowledge and ability to use some of the more advanced communication technologies.

Rose wanted to learn more of the synchronous tools, specifically; she had hoped to learn how to share documents during her live sessions, which would enable her to create a more interactive learning environment. Nancy would like to increase her ability to use NVu, which is the html editor that enabled the online teacher participants to create and edit html pages. These html pages were needed to create personalized pages inside of
the online classrooms that were housed in the IQity Learning Management System. Bill was not able to create videos in his classroom. He wanted to create his own videos so that he would be able to take ownership over making his content more fun and engaging for his students. Jackie, on the other hand, did not mention a specific tool to improve her ability to teach online; she instead mentioned needing assistance in using the tools to advertise herself better so that she would be able to make her students want to engage in her classroom. This finding was based on (a) the connection between student engagement and technology and (b) the deficiencies in technology that the teachers acknowledged through their interviews and course assignments. This finding is consistent with Rice et al. (2008) as they found virtual teachers were most in need of learning to use communication technology and desired learning technology as their most significant professional development need, and through Taylor and McQuiggan, who have found that the online teaching faculty most desire the ability to choose and use online tools to create more engaging lessons (2008).

Finding 3: Course Content Should Be Relevant to the Online Teachers’ Specific Needs

All of the teacher participants were able to acknowledge the content presented from the online professional development course that they found relevant to their specific online teaching needs. The two major connections that surfaced were copyright and community building.

The copyright content was relevant to the online teachers because they searched for enhancements to add to their online lessons on a regular basis. All of the participants mentioned that they did not receive adequate information on copyright during their pre-
service teaching and appreciated learning about it in their professional development course. This information was found relevant to the teachers as they needed it to abide by the copyright laws. Since none of the teachers learned about online teaching during their pre-service teaching programs, it is recommended that copyright information be included in professional development courses that are offered to beginning teachers.

Community building also surfaced as a content area that the online teachers felt was especially relevant to online teaching. Because increased student engagement surfaced as the primary goal of the online teachers, they all made a connection to the content regarding community building. The online teacher participants believed that building relationships and increasing communication would increase student engagement. The elements that were presented from the community of learners assignment included strategies that could immediately be implemented into their online classrooms to promote community and communication, which they feel may lead to an increase in student engagement and participation. The connection between the content and the teachers’ goals made the entire module on a community of learners relevant to all of the teacher participants. The relevance of content connecting to the participants goals as identified through this finding is connected to the typology of adult learning theory as adults are goal oriented (Merriam et al., 2007).

Bill also found the ability to visit another teacher’s classroom to be the most relevant to him. He was very focused on the instructional design of his online classroom in IQity. Bill’s ability to view and explore another classroom provided him with new ideas and excitement during his online professional development. This portion of the
online professional development course was found to be relevant to Bill as he immediately began implementing new ideas into his existing classroom. These new ideas will cause him to change his asynchronous teaching. Changes in teaching are found to result from a high quality professional development experience (Desimone et al., 2002). This finding contributed to the research by demonstrating (a) why the teachers connected to content, for example the teachers excitement in community building because it related to their goal of increasing student engagement and (b) how they showed their connection to the content. For example, Bill immediately began changing his own classroom based on what he learned from the professional development course.

Finding 4: Online Instructional Delivery Should Include a Variety of Presentation Techniques

The data from this research indicated that the teachers’ learning styles effected their satisfaction of their professional development course. As the teachers participated in their professional development course, they were divided regarding their satisfaction or dissatisfaction with the presentation. As the content of the online professional development course had many images and videos embedded within, those that identified themselves as visual learners such as Bill, Nancy and Rose, were satisfied with the overall structure of the course as opposed to Jackie, who identified herself as audio and kinesthetic. Jackie found the course distracting due to the course having a few grammatical errors and an absence of clear objectives. She also did not appreciate the design of the asynchronous content as she described it as having too many words on a page and found the amount of reading to deter her desire to engage in the course. Jackie
did appreciate the videos, which provided an audio and video component to the course of which she was able to relate. Interestingly, she was also able to identify the course objectives through the videos more so than she was through the pages of text.

As indicated in Chapter IV, the online teachers had various preferences for the delivery of an online professional development course that they would find to be most effective. Jackie would prefer using online synchronous communication tools, Rose and Bill mentioned their desire to incorporate face-to-face instruction and all of the participants stated that they enjoyed the video from their current professional development course.

The professional development was delivered using the IQity software. Rose, in addition to finding visual appeal in her online course, also appreciated the ability to learn within the context of her teaching environment. Learning in the context of one’s own teaching environment will enable teachers to more effectively understand their students’ needs as they are experiencing the same online teaching and learning environment as their students. These opportunities to learn in the context of their teaching environments are known to increase the effectiveness of the professional development as it connects their teaching environments to their knowledge base (Tillema & Imants, as cited in Guskey & Huberman, 1995).

This finding was based on the premise that the online teachers wanted professional development to be delivered through the media and presentation modes that best met their learning styles and instructional preferences. The literature on adult learning indicated that adults need instruction delivered through multiple presentation
modes (Brookfield, 1986; Cercone, 2008; Mezirow, 1991). Due to the variety of learning styles and the impracticality of providing individual instruction to each online teacher, this research has also concluded that online professional development should be delivered using a variety of media and presentation techniques to address many learning styles within one course.

Implications for Practice

The findings of this study resulted with two premises that could be used toward implications for future practice. Based on the findings that (a) student engagement is the primary concern for online teachers, (b) the adult learners want to increase their knowledge and ability in using technology, (c) course content should be relevant to online teachers specific needs and (d) online content should be offered through a variety of presentation techniques, the implications for practice are that online professional development should be based on principals of adult learning and instructional design.

First, this research contributes to the principles of adult learning theories through the first three findings. The first three findings of this study concluded that (a) student engagement is the primary concern for online teachers, (b) the adult learners want to increase their knowledge and ability in using technology, and (c) course content should be relevant to online teachers specific needs, which led to the implication that adult learning theories must be considered in the design of an online professional development course.

All of the teacher participants found the topics of the professional development to be relevant to their professional lives as the topics were based on the iNACOL Standards
of Quality Online Teaching, which was established to address the fundamentals of online teaching. As these standards were the framework of the professional development course, the teacher participants were provided with topics that educators from online schools across the nation have identified as relevant to online teaching. Table 4 represents the iNACOL benchmarks that were found relevant to the online teacher participants:

The participants were found to relate their course content to their specific online teaching needs, which indicated that the typology of adult learning was found relevant to this research. As mentioned in Chapter II, the typology of adult learning means that adults are goal oriented, activity oriented, and learning oriented (Merriam et al., 2007).

This research found evidence that the teacher participants were goal oriented, activity oriented, and learning oriented as all of the participants were able to identify and articulate specific areas or goals that they would like to learn or improve upon as a result of online professional development. The typology of adult learning also surfaced through their satisfaction or dissatisfaction of their online professional development course. Those who found the course to meet their needs were more satisfied than those who did not find the course to meet their needs. Adult learners are also found to require flexible pacing and course designs (Cercone, 2008; Mezirow, 1991). Although the participants in this study were given suggested due dates, each of the participants followed their own schedules as they were all working adults; three of them were married and one of them had children. The participants did not follow the same schedule; however, they all were finished by the course end date.
Table 4

*iNACOL Benchmarks Found Relevant*

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher meets the professional teaching standards established by a state-licensing agency or the teacher has academic credentials in the field which he or she is teaching.</td>
<td>All of the teacher participants were required to obtain state licensure as a condition of employment.</td>
</tr>
<tr>
<td>The teacher has the prerequisite technology skills to teach online.</td>
<td>All of the teacher participants participated in the technical skills survey that was part of the online course and identified specific areas where they needed or wanted to improve.</td>
</tr>
<tr>
<td>The teacher plans, designs, and incorporates strategies to encourage active learning, interaction, participation, and collaboration in the online environment.</td>
<td>The teacher participants identified student engagement as their primary professional development goal. The strategies to encourage active learning, interaction, participation, and collaboration in the online environment were found to be relevant to all of the participants.</td>
</tr>
<tr>
<td>The teacher provides online leadership in a manner that promotes student success through regular feedback, prompt response, and clear expectations.</td>
<td>Feedback was mentioned by all of the participants as a way to provide meaningful instruction to their students. The concept of clear expectations was also mentioned by the participants, most strongly by Jackie, who struggled during the online course as a result of the author not providing her with clear objectives or expectations.</td>
</tr>
<tr>
<td>The teacher models, guides, and encourages legal, ethical, safe, and healthy behavior related to technology use.</td>
<td>The copyright lesson was found to be relevant to all of the online teachers as it connected to their ethics with the use of technology.</td>
</tr>
<tr>
<td>The teacher has experienced online learning from the perspective of a student.</td>
<td>All of the teachers in this course experienced and appreciated online learning from the perspective of their students. They were each enrolled into the online classroom as students and used the same learning management system that their students use to access and submit assignments.</td>
</tr>
<tr>
<td>The teacher collaborates with colleagues.</td>
<td>Discussion boards and Elluminate were used to provide the teacher participants the opportunities to collaborate with colleagues.</td>
</tr>
<tr>
<td>The teacher arranges media and content to help students and teachers transfer knowledge most effectively in the online environment.</td>
<td>The secondary professional development goal of the online teacher participants was to increase their knowledge and ability to use technology.</td>
</tr>
</tbody>
</table>
Flexibility in course design was deemed important in this research. For example, two of the ten assignments involved a template that the teachers were to use when completing their assignments. Bill approached one of the two assignments in a different way than desired by the course author or facilitator. He chose to make the assignment fit his online teaching needs. The facilitator in this course could have decided to withhold credit or force the teachers who strayed from the directions to redo the assignment; instead she exercised flexibility in her course design and approach to the adult learners. This enabled them to continue working in a manner that was more meaningful to them instead of working in a manner that would simply satisfy their course requirements.

The instructional design implication based on the findings of this research can also be associated with the constructivist framework as presented by Gold (2001). Gold described constructivist instructional design as learner centered and socially meaningful. The teacher participants valued the flexibility as presented in the course and had a tendency to focus much of their effort on the sections of the course where they found themselves to be most in need of assistance. Bill, for instance, was looking for ways to increase communication in his online classroom. He mentioned feeling “self-conscious” about his ability to effectively communicate online and found much value in the communication module of the professional development course. He was the most active participant in the discussion board as he attempted to find ways that he could more effectively communicate with his students through his available technologies.

Second, based on the forth finding that (d) online professional development should include a variety of presentation techniques, this research contributes to principles
of instructional design. Implicated in this research is that the instructional design of online professional development should incorporate multiple media. This implication is supported by Rice and Dawley (2007) who also found that online teachers prefer online professional development through multimedia. As the participants identified their own learning styles, it was evident that they preferred different media when learning online. For example, Jackie was very much an auditory learner who had been making recordings of her own voice to allow the students to hear her explain a lesson as opposed to reading text. She was not satisfied with the presentation techniques of the course as they did not meet her auditory or kinesthetic needs. Although there was no attempt to identify which learning style is most successful in an online course environment, findings from this study do suggest that the course designer deliver the content through multiple modes of presentation and include a variety of assessments to reach as many of the learning styles as possible.

In addition to using multiple media for the presentation of online professional development, there were several types of professional development mentioned by the teacher participants as their ideal learning environment. Jackie preferred to learn online through multimedia. Nancy, like Jackie, preferred the online environment; however, she felt that a live facilitator would be needed to answer questions as they arose. Rose and Bill preferred a blended course design, where their sessions would be divided between face-to-face and online segments. From the four people in this study, three types of professional development were identified as the optimal learning environment, which indicates that professional development should be offered online with a few face-to-face
meetings for those who need that physical presence to learn more effectively and to promote community within a particular group. Garrison and Vaughan suggest adding face-to-face elements in the design of an online professional development course to promote relationship building within the online environment through a blended design (2008). They found that with the elements of inquiry (reflection and discourse) the proper use of media, the integration of synchronous and asynchronous forms of communication, and the emphasis placed on purposeful and reflective interaction, a blended course would be more effective than an exclusive face-to-face or online course (Garrison & Vaughan, 2008). In addition to where or how the online professional development is offered, there are also models of professional development to consider. As mentioned by Rice and Dawley (2007), the stage model is the most commonly used model of professional development. While this model requiring one to work through stages from novice to expert would be useful for those hoping to increase their knowledge of technology, teaching strategies would be better obtained through a more constructivist point of view, which allows the teachers to experience their learning through problem solving and/or collaboration.

Online teachers, especially those new to the field may feel isolated as they are separated from their peers. In addition to feelings of isolation, developmentally, these first year teachers will also enter the Survival Stage (Ryan, 1986; Littleton & Littleton, 2009). During the Survival Stage, teachers move beyond their fantasies of teaching and move toward a mode of daily classroom survival (Ryan, 1986; Littleton & Littleton, 2009). The Survival Stage was most evident through the frustration Bill and Jackie
expressed over their students low participation rates. Online teachers would benefit from the models of professional development that would promote community in their virtual environments such as the *Study Groups* or *Mentoring* models presented by Guskey (2000). These types of professional development would provide them more opportunities to communicate with colleagues and build professional relationships. Through the *Mentoring* model, educators would be able to build community within their school through the pairing of new online teachers with teachers who have more experience. Through mentoring, teachers will have a person to contact with questions or issues arise. All of the teacher participants from this study were part of a mentoring program where they experienced one-to-one mentoring with their individual mentor and they participated in formal group mentoring through the Entry Year Teacher Program. Each of the participants valued their ability to contact their peers or mentors for assistance when needed.

The *Study Group* model was not experienced by the participants of this study, however, would be beneficial to them as teachers in the field of online learning. The *Study Group* model presented by Guskey (2000) was intended for an entire faculty to participate in the effort of solving a specific problem. The teachers would divide into groups where they would work together and focus on one aspect of the problem. As all of the teachers of this study identified student engagement as their primary goal, it was most likely a district-wide concern. The teachers and the district would benefit by creating *Study Groups* where they all focused on a specific component to increase student
engagement. For example, this particular group of teachers could focus on creating engaging lessons to increase motivation.

Both the Mentoring and the Study Group models would create an opportunity to promote community in the online teaching environment. The same technology used to teach online students, could be used to create community for online teachers. For example, the IQity Discussion Boards would be beneficial for the mentoring in that they could be used for communication between the mentor and mentee and would be valuable for the mentees and mentors to post questions and answers to be viewed and contributed to by others in the same positions. Just as they were used in the online professional development course, the IQity Discussion Boards could also be advantageous for the implementation of a Study Group model. The group facilitator would be able to post the objectives or a discussion prompt in the discussion board. The group would then be able to add their input and contributions to the discussion board, which would be viewed by the other members of the group. Although Rose, Nancy, Bill and Jackie had different preferences in regards to asynchronous discussions through their discussion boards in IQity versus synchronous software used for live discussions, they all expressed appreciation and found value in their opportunities to communicate with and learn from their colleagues.

Working with peers surfaced as the supplemental finding of this research. The professional development models that promote community building provide teachers the technology and opportunity to work together and reduce isolation. In addition to promoting community, this research indicates the importance of models such as the
Individual Guided model. In connection with Brookfield (1986); Knowles (1980); and Houle (Merriam, Caffarella, & Baumgartner, 2007). The Individually Guided model presented by Guskey (2000), allows for educators to take ownership of their learning by deciding their own professional goals and activities. This model relates to Brookfield’s finding that the adult learner is motivated, self-directed, and participates in formalized education by choice, though Knowles’ theory of androgogy, recognizing the contributions adults make to their own learning and the learning of others, and through Houle’s adult learning orientations, which describes the adult learner as goal oriented, activity oriented, and learning oriented. If adults are to provide their students with a quality online education, they must receive professional development that allows them to interact with their peers and have the opportunities to obtain information that is relevant to their teaching.

Future Research Recommendations

As this research identified the online teachers’ professional development goals and the elements that should be included in the design of the online professional development course, there is also a need to address these same research questions as they apply to experienced online educators. A comparison drawn between the two groups of teachers will support the design of professional development courses created to meet not only the needs of online teachers in general, but also subgroups of online teachers. This research would also assist the field of online teaching by providing information that focuses on the connection between online teaching experience and professional development needs.
This research should be continued through follow-up surveys and observations with the online teacher participants. The online teachers will continue to engage in professional development opportunities through the online school that employs them. It would be beneficial to follow these teachers at the end of each school year over the course of the next 5-10 years (or until they are no longer employed by their online school) to examine any changes that occur in relation to their professional development goals or preferences regarding the elements of the instructional design used in online professional development courses. These changes should be examined first by surveying the participants through email. The survey method would be useful as it would allow the researcher the opportunity to send all of the participants the questions in written format and provide the participants time to reflect upon their answers prior to sending them to the researcher. If there are questions that are still unclear to the researcher, follow-up interviews are suggested through means of synchronous technology or the telephone.

It is also recommended that future studies include the observation of the teacher participants teaching online. This could be accomplished by asking the online teacher participants to email a recording of their synchronous teaching and provide transcripts from their discussion boards. This will provide an understanding of how the online teacher communicates with his or her students and how community building occurs through the communication technologies. As synchronous and asynchronous sessions are collected over the period of multiple years, their change in online teaching can be identified along with the specific elements that changed over time. In addition to the identification of a change in teaching, a researcher could also pinpoint the exact
professional development courses or other opportunities that transpired between each of
the recorded synchronous teaching sessions. These changes should be presented
graphically to provide a visual representation of the changes that occurred over an
extended period of time. This would include an opportunity to demonstrate not only what
changed in the teachers’ online teaching, but how and why these changes occurred. With
the data collected from a follow-up study, a significant contribution to the literature
would be made as this study would then address the professional development goals and
instructional design elements of teachers from various stages of their online teaching
career.

It is also recommended that future research be conducted with other online
teachers in addition to the teacher participants. Teachers from various online schools,
districts, and states should be contacted to participate in future studies regarding their
professional development goals and preferences in the design of professional
development courses. Since all of the online teachers work with technology, they can be
contacted through email that is initially sent to representatives of their school districts.
These teachers from various districts will be able to learn together through the use of
communication software. The teacher participants of this research study used IQity.
Through IQity, teachers from all over the country can be enrolled in the same online
course. They would be able to participate in group discussion through the asynchronous
IQity Discussion Boards. This would be advantageous to educators that are working full
time as they will be able to participate during the times that are convenient to them. The
IQity Discussion Boards are also useful for those who work in different time zones. If the
teacher participants have the convenience of having the same availability, synchronous software can be used to enable the teacher participants to have “live” class discussions. Elluminate was used during this particular research study, however, IQity is also releasing LiveBoard, which is their synchronous software accessible through the learning management system. LiveBoard was intended to provide the ability for participants to see and hear each other, interact through a virtual whiteboard, chat through the text box and access IQity classroom resources directly. Social networking software is also available for synchronous communication. Online professional development courses can experiment with Skype, Second Life, and My Space or even through simple chat room and instant messaging technologies such as MSN messenger.

The data from this study also indicated that future research be conducted in regards to the learning styles of online teachers. Research could identify current learning styles of online teachers, which could then be used in the design of professional development courses. The findings of this research indicated that learning style preference did contribute to the satisfaction of the professional development course. If the learning styles were known prior to the selection of an online professional development course, the course designer would be able to indicate which “types” of learners would most appreciate the presentation of the course. To take this one step further, the course designer could have several versions of the same course available where he or she can offer a suggested version based on the online teachers identified learning style.

Due to the primary professional development goal of online teachers wanting to learn how to increase student engagement and their secondary goal as wanting to increase
their knowledge and ability to use technology, more research is also needed to identify the relationship between an online teacher’s ability to use technology and his or her student engagement rate. It is necessary to identify the extent to which a teacher’s skills and a student’s willingness to engage support each other. If a relationship is established, it would then be recommended that the appropriate technical skills be identified that are needed by the online teachers to promote optimal student engagement and participation in the online classrooms.

Limitations Revisited

As mentioned in Chapter III, there were two major limitations of this study.

1. This research was based on one online professional development course designed to align to one organization’s suggested online teaching standards and is not representative of all of the online teaching needs and recommendations.

2. The findings from this study were based on one of the several areas of professional development that the online teachers receive.

In addition to the two major limitations presented in this research, the researcher is also a director in the online school that employed the teacher participants. Some of the teacher participants may have censored themselves due to the fear of being identified to their supervisors. Also, as with all qualitative research, the results from this study were not intended to be generalized as it was based on the experience of four first year teachers employed by one online school district. However, the information from this research can
be used to assist those in similar situations in making important professional development decisions.

Conclusion

The purpose of conducting this research was to identify (a) online teachers’ goals of professional development and (b) elements that should be included in the design of a professional development course for online teachers. From the four teacher participants, data were collected through interviews, course documents, and a synchronous discussion. Upon analyzes, the data emerged indicating the following findings (a) the online teachers wanted assistance with student engagement, (b) the online teachers wanted to increase their knowledge and ability in using technology, (c) the online teachers appreciated the course content that they found relevant to their online teaching needs, and (d) the online teachers wanted the online professional development to include a variety of presentation techniques. Principles of adult learning and instructional design were implicated based on the findings from this study and research in the realm of (a) experienced online teachers, (b) learning styles and online teachers and (c) student engagement and ability to use technology is recommended for future studies.

The findings and implications from this research study are relevant to the field of online teaching and learning in that they provide specific information as to the professional development goals of online teachers along with their instructional design preferences for these courses. As adults are goal oriented, activity oriented, and learning oriented (Merriam, Caffarella, & Baumgartner, 2007), it is imperative that they receive professional development to best meet their instructional needs. By meeting the
professional development needs of the instructors, students will be provided with knowledgeable instructors and a quality education. It has been found that a change in teaching will occur if teachers receive high quality and consistent professional development (Desimone, Porter, Garet, Suk Yoon, and Birman 2002). In addition to impacting teaching, quality professional development has also been linked to an increase in student achievement (MCREL, 1997). This study provided the ground work for quality professional development by indicating the professional development goals of online teachers and the elements that should be considered through the design of an online professional development course. With the number of online students estimated at approximately 1,000,000 (iNACOL, 2007b, p. 3), and the data from the literature and this study indicating that teachers are not prepared to teach online through their preservice teaching programs (iNACOL, 2007b), it is imperative that online teachers receive their pedagogical knowledge in the area of online teaching and learning through professional development courses. This knowledge of online teaching and learning should be offered to online teachers early in their professional career as it will provide online students with teachers who are prepared to teach them in their environment. This knowledge would take years to obtain for those teachers expected to receive informal “on the job training” and student learning would suffer as a consequence.
APPENDICES
APPENDIX A

FIRST INTERVIEW PROTOCOL
First Interview Protocol

1. How much teaching experience do you have? How much of that is online?

2. How do you describe effective teaching? What are the characteristics? Which of these elements/characteristics best describe you as an online teacher?

3. Do you feel you are as effective a teacher online as you were/would be in a traditional setting? How? Why?

4. Do you think your online students will have as many opportunities to learn as they would in face-to-face classes?

5. How much exposure did you have to online teaching through your undergraduate or graduate programs at the university you attended?

6. What professional experience(s) did you find to be the most influential regarding your ability to teach online?

7. What online tools do you use?

8. How effectively would you say that you use all of the online tools available to assist you in your online teaching? Why?

9. What does a typical teaching day for you consist of?

10. Which aspects of your online teaching do you feel could be improved?

11. What resources have you found to be valuable when you make your online instructional decisions (people, websites, etc.)?

12. What support do you feel that you need to be a more effective online teacher?

13. What are elements that you think will be important for the design of an online professional development course for online teachers?
APPENDIX B

SECOND INTERVIEW PROTOCOL
Second Interview Protocol

1. What are the concepts that you learned about in your professional development?

2. How can you incorporate these concepts into your teaching?

3. Have you already incorporated any of these concepts? Do you plan to do so?

4. There was an activity on what makes a successful online teacher (general characteristics, communication and community, engaging students with content, making the course meaningful, assessment, classroom management, providing support and technology skills). How does it compare to how you previously determined a successful online teacher?

5. You mentioned effectiveness during the first interview as being able to _______. Do you feel the same or would you like to change anything about that comment?

6. Lesson 2 reviews the checklist. Were there any surprises based on this skills checklist? What were they? Does this change the way you see yourself or your teaching? You mentioned being a ______ on using tools effectively during the first interview. Would you say that is still accurate or do you wish to change that rating?

7. In lesson 3 where you created a community of practice, tell me a little about that experience. Were you thinking of community of practice prior to this professional development for your classroom? Is there anything that you will do different based on this activity? Can you elaborate on your answer from this section?

8. Chapter 4 Lesson Plan: When you think about the components suggested by the professional development, were there any techniques that you were not using
before? What are they? Will you use them now? Let’s look at your online classroom. What do you think about lesson? What would you do differently based on your professional development?

9. You also visited reliable and valid assessments. Let’s look at your assessments. Are they what you would now consider reliable and valid? How? Is there anything you would do different?

10. What did you think of the synchronous session? Did it help in building a sense of community?

11. During your course, you learned about metacognition. You mentioned specifically ______. Tell me how you will go about doing this.

12. What did you think about the iNACOL standards addressed in the course? Were they appropriate for online teachers? Can you explain your answer?

13. How did you feel about the way the material was presented? Were the videos helpful? Why?

14. Were the topics in the course those you would have chosen to teach online teachers? Are they what you would consider the areas online teachers need professional development in?

15. What and how will you incorporate what you learned from professional development into your classroom?

16. How do you feel the concepts you learned from the course will impact student learning? What was helpful to you from this course? What will you definitely implement into your classroom?
APPENDIX C

INACOL STANDARDS OF QUALITY TEACHING
iNACOL Standards

The modules were heavily based upon the North American Council for Online Learning (iNACOL) online teaching standards. Each of the lessons had coordinating standards that could be cross referenced by the teacher participants. There were 13 organizing categories for these standards:

1. The teacher meets the professional teaching standards established by a state-licensing agency or the teacher has academic credentials in the field which he or she is teaching.

2. The teacher has the prerequisite technology skills to teach online.

3. The teacher plans, designs, and incorporates strategies to encourage active learning, interaction, participation, and collaboration in the online environment.

4. The teacher provides online leadership in a manner that promotes student success through regular feedback, prompt response, and clear expectations.

5. The teacher models, guides, and encourages legal, ethical, safe, and healthy behavior related to technology use.

6. The teacher has experienced online learning from the perspective of a student.

7. The teacher understands and is responsive to students with special needs in the online classroom.

8. The teacher demonstrates competencies in creating and implementing assessments in online environments in ways that assure validity and reliability of instruments and procedures.
9. The teacher develops and delivers assessments, projects, and assignments that meet standards-based learning goals and assesses learning progress by measuring students’ achievement of learning goals.

10. The teacher demonstrates competencies in using data and findings from assessments and other data sources to modify instructional methods and content to guide student learning.

11. The teacher demonstrates frequent and effective strategies that enable both teacher and students to complete self- and pre-assessments.

12. The teacher collaborates with colleagues.

13. The teacher arranges media and content to help students and teachers transfer knowledge most effectively in the online environment.

These standards are broken down further into individual and specific guidelines designed as a checklist for online educators to understand their own competency within these individual components.
APPENDIX D

TEACHER CONSENT FORM
TEACHER CONSENT FORM

Consent Form: Online professional development?

I would like to conduct research on online professional development to support the learning of 1,000,000 students enrolled in online courses. I would like you to take part in this project. If you decide to do this, you will be asked to engage in an online professional development course consisting of ten or more modules (brief on-line sessions) that you will be able to complete at your own pace. These modules could be expected to take approximately 2-3 hours per module; however, as you will be working at your own pace, this will vary according to the individual. It will be expected that you complete a minimum of one module per week. You may also be asked to engage in online discussions with your colleagues regarding the topics of the online modules where your conversations will be audio recorded.

Your names will not be released or published with the data of this study. You will also be asked to participate in a focus group interview where you and your colleagues will engage in a discussion about your experience with this online professional development opportunity.

The facilitator of this course will not be the researcher; however, he or she will be appointed by the Electronic Classroom of Tomorrow, ECOT. The facilitator will not know your names until the completion of the course. As this professional development will be delivered online, you will not be seen by anyone, with the exception of the researcher during interviews. You will also be entered into the IQity system by the researcher under pseudo names. Only the researcher will know your true identity during this study. The facilitator will only know you by your pseudo name. Upon completion of this professional development course, the facilitator will send the list of completers to the researcher and the researcher will send the facilitator a list of actual names that is based on the list pseudo names to issue earned CEUs.

If you choose to withdraw from this study, your withdrawal will not be held against you by your administrator. Administrators will not know the identity of those participating in this study until after the professional development has been completed. If you agree to participate and then decide to withdraw, your administrator will not know that you were ever a part of this study. Also, if you choose to withdraw, all of the information or data that were collected based on your participation will be excluded from this study.

This course is pass/fail. CEUs will be offered to all of those who successfully complete the activities of this course. Upon completion of this course, participants’ names will be released to the school as completers of the course to receive CEUs. The school will ONLY be provided with a list of teachers who completed the professional development course.
Consent Form: Online professional development: Does it influence online teaching?

If you choose to take part in this project you will be able to engage in an online teaching and learning opportunity that will provide you with knowledge of fundamental concepts of online learning.

You will also be a part of an online learning community where you and your colleagues will have the opportunity to engage in discussions regarding the topics presented in the course. Taking part in this project is entirely up to you, and no one will hold it against you if you decide not to do it. If you do take part, you may stop at any time.

If you want to know more about this research project, please call me at 330.792.4775. The project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice President of Research, Division of Research and Graduate Studies (Tel. 330.672.2704).

The faculty advisor for this researcher is:
Dr. Steven L. Turner, Ph.D.
Assistant Professor, Middle Childhood Education
Teaching, Leadership and Curriculum Studies
Kent State University
404S White Hall
150 Terrace Drive
PO. Box 5190
Kent, Ohio 44242-0001
Phone: 330-672-0659
Fax: 330-672-3246
Email: sturner6@kent.edu

You will receive a copy of this consent form.

Sincerely,
Maria Boyarko

B. CONSENT STATEMENT(S)

1. I agree to (take part) in this project. I know what (I) will have to do and that (I) can stop at any time.

_______________________________________________________________________________
Signature Date
APPENDIX E

FACILITATOR CONSENT FORM
FACILITATOR CONSENT FORM

Consent Form: Online professional development: Does it influence online teaching?

I would like to conduct research on online professional development to support the learning of the 1,000,000 students enrolled in online courses. I would like your permission for the online professional development participants that you are facilitating to take part in this project. I am also asking for permission to include any interactions that you may have with participating teachers regarding discussion board sessions, messages from the message center, and any live sessions that you decide to incorporate. If you agree, any course discussions and course content will be a part of this research. If your teacher participants decide to do this, they will be asked to engage in interviews and observations. Their lessons and online content will also be examined for analysis. I am asking that all interviews, completion of modules and course interactions be completed by March 1st.

Participant names will not be released or published with the data of this study. Also, I am asking that it not be held against teacher participants if they choose to withdraw from this research study. Teachers will be assigned pseudo names by the researcher and will remain confidential until the completion of this course. School administrators and you, the course facilitator, will not know the participants true identities until the professional development has been completed. At that time, the researcher will examine the list of passing participants based on pseudo names and generate a list to you, the facilitator, of the true identities of those who have passed the professional development course. Those who choose to withdraw from the study will not have their identities released to the facilitator or the administrator. A list of names will only be released after the course for the purpose of CEUs.

If teachers take part in this project they will be able to engage in an online teaching and learning opportunity that will provide you with knowledge of fundamental concepts of online learning. You will also be a part of an online learning community where you and your colleagues may have online discussions regarding the topics presented in the course. Taking part in this project is entirely voluntary, and no one will hold it against any participant if they decide not to do it. Anyone who does take part, may stop at any time.

If you want to know more about this research project, please call me at 330.792.4775. The project has been approved by Kent State University. If you have questions about Kent State University's rules for research, please call Dr. John West, Vice President of Research, Division of Research and Graduate Studies (Tel. 330.672.2704).

The faculty advisor for this researcher is:
Dr. Steven L. Turner, Ph.D.
Assistant Professor, Middle Childhood Education
Teaching, Leadership and Curriculum Studies
Kent State University
You will receive a copy of this consent form.

Sincerely,

Maria Boyarko

B. CONSENT STATEMENT(S)

1. I agree to (take part) in this project. I know what (I) will have to do and that (I) can stop at any time.

Signature ____________________________________________________________________________ Date __________
APPENDIX F

AUDIO TAPING CONSENT FORM
AUDIO TAPING CONSENT FORM

Online professional development: Does it influence online teaching?

I agree to audio taping at the Electronic Classroom of Tomorrow, and during any online discussion sessions. I also agree to the audio taping at other locations outside of the Electronic Classroom of Tomorrow where interviews involving this study may occur and through the telephone conversations arranged for the purpose of this study on:

To what extent does an online professional development course influence online teaching?

__________________________________________________________________________  ___________
Signature       Date

I have been told that I have the right to hear the audio tapes before they are used. I have decided that I:

_____ want to hear the tapes  _____ do not want to hear the tape.

Sign now below if you do not want to hear the tapes. If you want to hear the tapes, you will be asked to sign after hearing them.

Maria Boyarko and other researchers approved by Kent State University may / may not use the tapes made of me. The original tapes or copies may be used for:

_____ this research project _____ teacher education _____ presentation at professional meetings

__________________________________________________________________________  ___________
Signature       Date

Address: _____________________________________________________________________
REFERENCES


Merriam-Webster. (1961). Retrieved from:

http://en.wikipedia.org/wiki/Webster’s_Dictionary


