TOWSON UNIVERSITY
COLLEGE OF GRADUATE STUDIES AND RESEARCH

EXAMINING THE EFFECTIVENESS OF K-12 PROFESSIONAL DEVELOPMENT DELIVERED THROUGH A HYBRID-BASED LEARNING ENVIRONMENT

by

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A dissertation

Presented to the faculty of

Towson University

In partial fulfillment of the requirements for the degree

Doctor of Education in Instructional Technology

September

Towson, University
Towson, Maryland 21252

TOWSON UNIVERSITY
COLLEGE OF GRADUATE STUDIES AND RSEARCH

DISSERTATION APPROVAL FORM

This is to certify that the dissertation prepared by Diane Kay Larrimore, entitled Examining the Effectiveness of k-12 Professional Development Delivered Through a Hybrid-based Learning has been approved by this committee as satisfactory completion of the requirement for the degree Doctor of Education in **Instructional Technology** in the department of Reading, Special Education and Instructional Technology

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ACKNOWLEDGEMENTS

I wish to thank the following persons for their time and professional assistance:

- My advisor and dissertation chair, Dr William Sadera
- My dissertation committee, Dr Ronald Thomas, Dr Jeff Kenton, and Dr Stephen Mogge

I wish to also thank the following individuals whose support and encouragement helped me make it through the rigorous dissertation process:

- My husband and best friend, Wayne and sons Zachary, John, and Christopher for their love and ardent support during my graduate studies
- My sister Donna Sanger and friend Susan Boone for their assistance with the mysteries of the English language
- Dr Randi Miller for her advice and encouragement throughout the dissertation process

ABSTRACT

Examining the Effectiveness of K-12 Professional Development Delivered Through A Hybrid-Based Learning Environment

Diane Kay Larrimore

During the last few years, K-12 teachers have requested professional development that is delivered through a learning environment that enhances and supports the critical knowledge they need to successfully prepare students for the 21st century. A hybrid-based learning environment, which is the seamless integration of the best practices of a traditional classroom with the most effective features of online learning, may be the active learning framework educators are seeking. The purpose of this mixed methodological research study is to examine and assess the experience of K-12 teachers who completed a hybrid-based, professional development course. These teachers' retention of knowledge, transference of content into classroom instructional practices and overall perceptions about the effectiveness of the hybrid-learning environment will be studied.

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CHAPTER I. INTRODUCTION

According to the No Child Left Behind Act (NCLB) of 2002, professional development is defined as ongoing training for K-12 educators that gives them the skills to support mastery of state academic standards; enhances the content knowledge of teachers in their curriculum area; is research-based; and is focused on classroom practice (National Staff Development Council, 2005). Prior to the mid 1990's, a traditional classroom-based learning experience was the basic model school districts used to deliver continuing education to practicing teachers. Training seminars or conferences, limited in length and depth, was usually delivered through directed or transmissional learning (McKenzie, 1991; Morrow, 2002).

However, educational research (Sparks & Hirsh, 1997; King, 2004) began to indicate that a self-directed learning pedagogy such as transformative learning was a more effective instructional framework for the adult learner. Transformative learning (based on the constructivist learning approach) provided adult learners from a variety of backgrounds, educational levels and teaching experience the foundation they needed to define goals, set objectives, choose methods and resources, and organize successful learning practices around their own life experiences (James & Bailey, 2002).

During the late 1990's, researchers (Joyce & Showers, 2002; Sparks & Hirsh, 1997) provided educators with the documentation needed to advocate for improved professional development opportunities. These opportunities were critical to helping practicing K-12 teachers meet the challenges of preparing students for the 21st

century. To implement high-quality professional development which promoted enhanced student achievement, school districts began to reexamine professional development programs to determine if these training opportunities aligned with national and state curriculum standards, utilized effective pedagogical processes, supported rigorous subject content and context, and were designed for the distinctive needs of practicing teachers as adult learners.

In the late 1990's, the traditional classroom learning environment began to be supplemented with courses presented entirely online (National Staff Development Council, 2001). Courses delivered electronically received increasing attention from a number of educational researchers (Wideman & Owston, 2000; Morrow, 2002; Achtemeier, 2003) because it was a pedagogical model that could support active learning by embedding technology-enriched educational resources within a self-directed learning framework and was available anytime and anywhere. However, even though online learning has evolved into an effective learning modality, for many practicing teachers, there are still concerns about online professional development such as attrition, technology accessibility, and technology experience (National Center for Educational Statistics, 1999; Technology Counts, 2002; Pomeroy, 2003).

Hybrid-based learning, which is the convergence of the best practices of both virtual and physical, learning environments, has recently begun to demonstrate positive results within institutions of higher educational (Dziuban, Hartman, & Moskal, 2004). Several researchers (Dunckle & Leite, 2004; Skill & Young, 2002) reported college students who enrolled and completed courses offered through a

hybrid-based learning environment demonstrated increased academic achievement. Additionally, attrition rates were lower in hybrid-based courses than in either the traditional classroom or a fully online course. Garnham and Kaleta (2002) also noted hybrid-based learning promoted self-directed learning, collaboration, and increased student-to-student and teacher-to-student interaction.

Because hybrid-based learning, as an instructional prototype, has generated positive results in higher education, K-12 school officials are beginning to examine this model to determine if hybrid-based learning serves as an effective professional development learning environment for the diverse types of adult learners who represent today's practicing K-12 teachers. Through the parameters defined by four guiding questions, this research examines study participants' perspectives about learning within the constructs of a hybrid-based learning environment. This chapter contains sections that focus on background research, statement of the problem, research design, guided questions, limitations and assumptions, and definition of terms.

Background Research

The purpose of this section is to introduce the historical background that has led to this inquiry of hybrid-based learning environments in K-12 professional development. This background research will be presented in three focused parts: the need for professional development and the impact of the No Child Left Behind Act of 2001; the development of technology-based learning environments; the shift from

directed learning toward self-directed strategies, the limitations inherent in online presentation, and the need to consider hybrid-based learning to effect high quality professional development.

Professional Development

In K-12 education, specialized subject-content areas and levels of instruction, (i.e. elementary, middle and high school) have their own distinct characteristics and accountability standards. Meeting these national and state curriculum, professional development, and technology standards has taken on a new sense of urgency since the passage of the No Child Left Behind Act (NCLB) of 2002. Because of this federal mandate, many states have revised the definition of professional development to include providing practicing teachers with a more rigorous set of standards for increasing teachers' knowledge and skills to afford students successful learning opportunities (United States Department of Education, 2001).

In 2004, Maryland, realizing the necessity to identify, specifically, the characteristics of high quality professional development, adopted new teacher professional development standards. The original benchmarks reflected the three broad National Staff Development Council's (NSDC) general categories of content, context and process. Maryland's new indicators for professional development programs include the following expectations:

- rigorous and multifaceted evaluations;
- application of knowledge about adult learning theory and effective practices;

- quality teaching;
- research-based strategies;
- data-driven;
- collaboration among colleagues;
- equity in learning among students of diverse learning abilities;
- skills necessary to involve other stakeholders (Maryland State Department of Education, 2004).

Early Professional Development

Historically, professional development programs did not view establishing long-term goals and meeting standards as a priority. Formal professional development typically consisted of school and district "staff-development" training sessions. The National Center for Educational Statistics (1991) (NCES) argued that such traditional approaches were usually ineffective because they were short-term, lacked continuity through adequate follow-up, and isolated participants from authentic learning environments. Fullan and Stiegelbauer (1991) agreed that traditional professional development consisted mostly of passive directed-learning situations which did not create long-lasting effects on either teacher competency or student achievement.

Self-directed Learning

After the mid 1990's, traditional professional development that did not focus on decision-making, self-monitoring and optimizing learning experiences began to move towards a more self-directed or transformational approach (Perkins, 1993).

Jonassen, Davidson, Collins, Campbell, and Haag (1995), when researching exemplary instructional designs, suggested traditional, prescriptive and directed learning situations should be shifted towards self-directed learning to allow participants the opportunity to solve real-world problems, engage in dialogues with a community of practitioners, and construct knowledge through collaborative activities embedded within meaningful contexts.

The move towards more effective professional development was supported by research that suggested quality professional development could be linked to successful educational programs for K-12 students (Sparks, & Hirsh, 1997). This was exemplified by Joyce and Showers (2002) who reported that a teacher or community of teachers who engaged in a formal study of a curriculum or a teaching strategy that could be used across the curriculum would substantially increase the odds of raising student achievement.

Cranton, (1996), Thompson, (2001), and King, (2002; 2004) supported these findings when they described how transformative learning, deeply grounded within the principles of constructivism, was a self directed and authentic learning process. Transformative learning allowed adult learners to reconfirm their belief system and develop new ways of understanding (King, 2004). Moreover, adult learners internalized knowledge more effectively when transformative learning was implemented because it stressed the importance of the learners' past experiences, examined learners' needs and interests, encouraged active involvement, and

stimulated higher-order thinking (Bonk & Cunningham, 1998;Thompson, 2001; Hirumi, 2002).

Evidence that professional development began to move towards self-directed learning was reflected in the NCES (1999) Teachers' Quality Survey. The results of this survey confirmed that teachers received professional development that permitted them freedom to experiment with the content. Professional development topics included curriculum and performance standards, integration of educational technology into various grade and subject levels, and new methods of teaching (e.g. cooperative learning) (NCES 1999).

Technology-based Learning Environments

Even with professional development opportunities moving from transmissional to transformative learning, teacher training was still conducted in the traditional classroom setting. NSDC (2001) stated that a typical teacher was expected to drive to a local university or across town to a staff development center to participate in professional development courses. NCES (1999) and Leonard (1999) reported 82 percent of professional educators believed the primary factor for their lack of ongoing professional development was their inability to travel and devote time towards professional development courses during their busy days. According to Feist (2003), practicing teachers emphasized the need for professional development opportunities that:

- Could be used right away;
- Had built-in follow-up procedures;

- Fit into their busy schedules;
- Matched their learning styles;
- Focused on curriculum;
- Included leadership or direction from the program chair; and
- Included a support person. (Feist, 2003, p. 2)

Many practicing teachers also did not feel they were receiving the high quality professional development they required to address the needs of their students. Furthermore, researchers (Knowles, 1978; Thompson, 2001; Dunkle & Leite, 2004) noted that the traditional instructional model did not provide the distinctive characteristics that defined highly effective professional development environments for adult learners. Researchers (Thompson, 2001, Dunkle and Leite, 2004) reported high quality learning environments should include:

- Course instructors who explained why specific things are being taught;
- Course instructors who provided guidance and support;
- Instructional activities that were task-oriented and diversified according to the learners' prior knowledge and individual learning styles; and
- Instructional activities that promoted learner self-exploration

The need for an alternative method of delivering professional development reached a critical point when the federally-mandated NCLB became law in 2001. NCLB stipulated that all practicing teachers be certified as "highly qualified" in their areas of expertise by 2005-2006. Highly qualified teachers were also to be placed within schools which performed poorly on achievement tests and in classrooms

whose students were deemed the most at risk to fail (United States Department of Education, 2002) (DOE). NCLB also emphasized the utilization of results-proven professional development. This specific mandate underlined the critical need for K-12 school systems to integrate highly effective teaching pedagogies with curriculum to increase achievement in disaggregated student groups. Within a very short period of time, the top priority for all public school districts became reforming professional development and providing it through learning environments that met the diverse needs of practicing teachers.

Online Learning

Since the mid-1990's, online or Internet-based education has become a growing trend in business, industry, and higher education. By 2002, 55 percent of all business training was presented online, up from 21 percent in 1998 (Crichton &Childs, 2003). In addition, by 2001, 57 percent of colleges and universities offered some type of online educational learning program. Based on this global increase in online learning and the necessity to deal with shrinking school budgets and instructional resources, public school administrators began to explore the possibility of utilizing Internet-based learning formats for students and teachers (Crichton & Childs, 2003; NSDC, 2001). Public school administrators were particularly interested in online learning environments after reviewing educational studies that examined the instructional design of high quality online educational environments and determined these models included the characteristics of self-directed and constructivist learning values and assumptions (Berge & Collins, 1997).

Although online education included an abundance of technology-based instructional resources and embraced the attributes of an effective learning environment which could assist in the creation of high quality professional development, data from research studies (Gregoire, Abracewell, & Laferriere, 1996; Wideman & Owston, 2000) confirmed it was critical for practicing teachers to have a significant level of knowledge and skills in technology to be successful in this new learning modality. According to the National Staff Development Council (2001) (NSDC), even though many teachers were interested in enrolling in courses that were offered through an electronic learning environment, some instructors felt they did not have the expertise or time to utilize new technologies. As a result, the overall perception of these teachers was they were not technologically savvy enough to complete online courses successfully (NSDC, 2001).

Researchers (NSDC, 2001; Dziuban, Hartman & Moskal, 2004) suggested online learning was an effective and efficient educational environment for ongoing professional development because of its variety of instructional resources and its ability to help practicing teachers sustain and implement new teaching concepts and skills within their classrooms. However, this same research also reported that practicing educators who were not comfortable with completely online learning environments required a different type of instructional modality. NSDC (2001) and Sparks (2001) noted that ongoing professional development would be more effective if training occurred through a blending of online and face-to-face pedagogies. Blended or hybrid-based learning could provide teachers whose diverse learning

abilities necessitated a well-defined support learning system with an effective technology-based educational environment.

Hybrid-based Learning

Hybrid-based learning is defined as the integration of the best attributes of online instruction with the interactivity that typically characterizes face-to-face instruction (Martyn, 2003). It has also been called mixed-mode instruction, and has been a relatively under-used instructional model in education (Dziuban, Hartman & Moskal, 2004). Hybrid learning did not become an alternative instructional approach until the early 1990's when a convergence of new pedagogies (e.g. teacher-centered to self-directed learning), new technology (e.g. personal computers and the Internet) and new learning theories (e.g. brain-based learning and social constructivism) began to receive attention from the nation's top educational experts (Dziuban, Hartman & Moskal, 2004).

Carman (2002) suggested that hybrid-based learning is suited for adult learners because they are not single-method learners, but instead need a mixture of instructional strategies that optimize individual learning modalities and styles. This concept is supported by Lieberman (1995) and Gibson (2002) who state that a hybrid-based learning environment provides an effective framework for ongoing professional development because it allows the adult learner to get away from isolated, stand-alone events and transition into collaborative technology-enhanced activities. These activities form an integral part of successful curriculum practices that have an impact on learning (Joyce & Showers, 2002). The integration of the best classroom and

online activities provides practicing teachers contextual materials in a range of formats that reach all types of individual adult learning styles and characteristics (Murphy, 2002; Smolka, 2003; Singh, 2003).

Dziuban, Hartman & Moskal (2004) reported that hybrid-based learning should not be thought of as a definitive instructional design that molds all the features of both online and face-to-face together into one instructional approach. Instead, hybrid-based learning should be viewed as a fundamental redesign of an instructional model with the following core attributes: a shift from directed-learning to self-directed instruction in which students become active and interactive learners; an increase in interaction between student-instructor, student-student, student-content, and student-outside resources; and integrated formative and summative assessment mechanisms for students and instructor.

Although there is very little research that supports the use of hybrid learning in K-12 professional development, students in higher educational facilities who have prior success with fully online courses report they are satisfied with courses offered through a hybrid-based learning format (Dziuban, Hartman & Moskal, 2004). One of the reasons these students gave was they found some instructional activities offered through the traditional classroom format easier to learn than if these same activities were only conducted through an online environment. Furthermore, researchers (Dziuban, Hartman & Moskal, 2004) have reported that faculty at higher education facilities who teach using the hybrid-based learning format consistently record higher

satisfaction rates with the experience over comparable face-to-face and fully online courses.

Summary

Historically, K-12 teachers received their ongoing professional development through a transmissional learning framework within the confines of a traditional classroom-learning environment. However, in the mid-1990's, the dominant model of transmissional or directed learning shifted towards self-directed or learner-centered strategies. This shift occurred because of the critical need to provide relevant and effectual professional development for K-12 practicing teachers which not only met federal and state guidelines, but also promoted construction of new knowledge, and was cognizant of educators' daily demands.

In order to become qualified in key curriculum areas, as required by recent federal and state legislation, many K-12 teachers enrolled in predominately online professional development courses. Unfortunately, evaluations from these courses suggested some K-12 teachers were not successful in completely online learning environments (NCES, 1999). Because of the critical need to support the diverse types of adult learners exemplified by teachers, K-12 school administrators have begun to explore alternative learning environments to determine if these modalities could deliver effective high quality professional development. A hybrid-based learning environment is one model whose key components would not only support the values and assumptions of constructivism but would also integrate the practical needs of

teachers (e.g. relevant content, flexibility of class scheduling, and an efficient and timely community of support) (Feist, 2003).

Statement of the Problem

Currently, K-12 school systems are looking for high quality professional development courses that meet national, state, as well as technology standards, and are delivered through a self-directed constructivist process such as transformative learning. This has proven difficult because K-12 public school systems are experiencing budget constraints and a shortage of qualified personnel needed to design and teach high quality professional development courses (Carter, 2004). Moreover, certified teachers are demanding school administrators provide ongoing professional development that meets their individual needs and time constraints (Feist, 2003). Even though some K-12 teachers enrolled and successfully completed online courses offered through a distance education program at a higher education facility, many others were not successful (NCES, 1999).

Therefore, to provide effective professional development for all certified teachers, K-12 public school administrators have begun seeking an alternative learning environment that assimilates the principles of self-directed learning and recognizes the unique characteristics of teachers as adult learners (Carter, 2004). An instructional prototype called hybrid-based learning, which embraces transformative learning and accommodates the adult learner, has recently demonstrated positive results on college campuses. However, there is little research into its effectiveness in delivering professional development to practicing K-12 teachers.

Purpose of Research

The purpose of this concurrent mixed-methods study is to determine if high quality professional development strategies, delivered through a hybrid-based learning environment, is perceived by K-12 teachers to be an effective learning experience. Specifically, the research study will determine if K-12 teachers successfully internalize content knowledge and adapt the concepts being taught into their daily instruction.

Research Design

A concurrent triangulation approach was utilized to validate the results from this mixed-methods research study. The concurrent triangulation strategy was selected because it is a model that supports the simultaneous collection of quantitative and qualitative data during the research phase of an investigation (Creswell, 2003). Prior to the beginning of the study, the professional development course under investigation was analyzed for characteristics of an optimum hybrid-based learning environment by experts in the field of educational technology, hybrid-learning, and online learning using the criteria set by the Hybrid-Based Professional Development Course Review Rubric (HPDR). The HPDR was utilized not only by experts to evaluate the pilot Assistive Technology Professional Development course (ATPD) but also by study participants to determine if the ATPD course reflected the characteristics of high-quality, hybrid-based learning. The HPDR, prior to its use as an evaluative instrument, also went through numerous revisions based on evaluative comments from experts in the field of hybrid and online learning.

Additional quantitative data was gathered through a pre/post content test developed by assistive technology experts and administered to course participants during the first and last course learning module. The Assistive Technology Content Pre-Test Post-Test (ATCPT) was created to measure, not only the increase in percentage of participant internalization of course knowledge, but also to determine if the increase was significant based on a confidence level of ($p<.05$). Study participants were also required to answer an Assistive Technology Exit Survey (ATES) administered during the last class of the ATPD course to evaluate all facets of their hybrid-based instructional experience.

Qualitative instruments included five end-of-learning module reflection questions (ELMQ) that course participants were required to answer after they completed each ATPD learning module. These reflection questions provided some of the qualitative data that was necessary to track participants' perceptions about relevancy of content, how participants might apply new information into their own classroom teaching practices, the role of the course facilitator, and participants' opinions about the individual learning module's instructional design.

Qualitative data were also collected through individual participant interview sessions conducted by the researcher three weeks after the course was completed. An interview guide (IGQ) that included 25 open-ended questions was also designed to focus on participants' perceptions about the hybrid-based instructional design, relevancy of content, course technology, its support framework and transference of content into the classroom.

Once quantitative data were collected it was entered into a statistical analysis package called SPSS. All qualitative data were collected and coded according to predominant themes that were prevalent during the first reading of all data using a Master Content Code (MCC). Coded qualitative data were categorized according to participants' demographics, responses and themes and then entered into a Guiding Questions Database (GQD). A thorough analysis was conducted for data from both methods using the concurrent triangulation approach. This strategy cross-validates findings by offsetting the weakness of one method's (qualitative or quantitative) findings with the strengths of the other (Creswell, 2003). To assist in the triangulation of all data, Guiding Questions Triangulation Worksheets were used by the researcher. Finally, a Decision Making Matrix (DMM) was employed to provide the researcher a means to interpret results efficiently and effectively.

Guiding Questions

This research study was designed to explore the following overall question: Is a hybrid-based professional development environment a viable instructional model for practicing K-12 teachers? To fully understand the concept of the study, the following questions will serve as a guide to the investigation and analysis:

1. To what extent does this professional development course exemplify the characteristics of a high quality hybrid-based learning environment?
2. Will K-12 teachers develop an increase in understandings of course content after completing a hybrid-based professional development course?

3. How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional practice?
4. Through the interview process, how do participants evaluate and describe the positive attributes, benefits, and problems they experienced learning within a hybrid-based environment?

Limitations and Assumptions

This research is being conducted with the acknowledgement of the following limitations and assumptions:

1. This research study was limited to determining the perceptions of K-12 teachers in relationship to their experience with professional development delivered through a hybrid-based learning environment. The study was not conducted to determine the optimum components of a hybrid-based learning design.
2. The selection of subjects was limited to eligible teachers who have enrolled in a hybrid-based professional development course. This sample of convenience introduces bias based on limitations of the course, generalities, and student population. The results of this research may not be generalizable beyond this population.
3. The targeted population for this research study was practicing K-12 teachers employed by a rural school district in Maryland. It is assumed that all study

participants were mentally and intellectually prepared to comprehend the course concepts being taught.

4. The class and research was conducted solely through the course management system, Desire2Learn. No other online learning platform was utilized during the tenure of this investigation. Therefore, conclusions made during the analysis of data from this study may not be generalizable when other course management systems (CMS) are utilized as the online component for a hybrid-based professional development course.

Definition of Terms

Assistive Technology. A device or service that directly assists a child with a disability.

Blended Instruction. A term that is used interchangeably with hybrid-based learning or multi-mode instruction.

Course Management System (CMS). The online software designed to support facilitator to student, student to student, and student to facilitator communications through discussion formats, posted course materials and resources, and other informational hyperlinks within a technology-based learning environment.

Face-to-Face Instruction. Is considered the traditional approach to instruction. All instruction occurs within the physical constructs of the classroom.

Predominately Online Learning. Instruction is offered at least 75 percent through an electronic learning infrastructure; the rest of instruction may include some face-to-face classroom sessions. Constructive pedagogies form the framework for high quality online learning instruction.

Hybrid-based Learning. Is the integration of instruction that is offered through both a traditional classroom and an online learning environment. Thirty to 65 percent of instruction is conducted through an electronic learning infrastructure; the rest of course instruction is offered within the constructs of a traditional classroom.

Professional Development. The educational training developed for practicing teachers and administrators to help them add or strengthen the specialized knowledge,

skills, and standards they require in the conduct of their profession and the building of expertise to enhance personal growth.

Transformative Learning. Learning that allows more inclusive, differentiated, permeable, and integrated perspectives. Supports the utilization of individual's values, beliefs, and assumptions, to compose the lens through which personal experiences are mediated and understood (Merriam, 2004).

CHAPTER II. LITERATURE REVIEW

According to the 35th Annual Phi Delta Kappa/Gallup Poll (Rose & Gallup, 2003), a majority of the American public believes preparing students for the challenges of the rapidly expanding informational age must be a priority for all of the nation's public schools. Seventy-three percent of the American public would like educational improvement to come through the existing public school system, not through alternative educational programs (Rose & Gallup, 2003). As a result, the solution to the challenge that faces public educational leaders must be grounded in strategies that focus on how to provide high-quality professional development to practicing K-12 teachers so that they may effectively teach and guide 21st century students as they progress through their educational experience and into adulthood.

Although current research is not always consistent in its findings, the statement that great teachers make a profound difference in the lives of their students has become one of the most significant and accepted premises in education. This tenet is so widely accepted that the Phi Delta Kappa/Gallup Poll indicates 66 percent of the American public is very concerned about getting and keeping high quality teachers (Rose & Gallup, 2003). Walsh and Tracy (2004) supported these data when reporting that 70 percent of adults believed school districts should augment funding for ongoing professional development to keep teachers current with proven best practices in teaching.

However, during the last decade, many teachers and educational administrators have criticized the quality and type of professional development that

has been offered to practicing educators. According to a survey conducted by Public Agenda (2003), 50 percent of teachers reported that the professional development they received had made little difference to them as instructors. The National Staff Development Council (NSDC) (2001) indicated 60 percent of the 2001 National Board Certified-teachers were not satisfied with the quantity and quality of ongoing professional development. Research by Sparks and Hirsch (1997) described how there was a short-sightedness among school reformers calling for a new type of professional development. "What everyone appears to want for students - a wide array of learning opportunities that engaged students in experiencing, creating, and solving real problems, using their own experiences – is for some reason denied to teachers when they are learners."(Sparks & Hirsch, 1997, p. 591)

Recently, the enactment of the No Child Left Behind (NCLB) Act of 2001 and the growing demand by K-12 teachers for more effective professional development helped push professional development reform to the top of public school's priority lists. NCLB requires all states to address greater accountability of teacher quality and alignment of professional development, content, and technology standards. As a result, school districts have increased their focus on the identification and implementation of highly effective teacher learning environments such as hybrid-based learning (United States Department of Education, 2003) (DOE).

The purpose of this chapter is to present a review of research and literature that supports the implementation of K-12 professional development through a hybrid-based learning environment. The interpretive framework for the research study is

based upon student-centered learning pedagogy and the principles of constructivism. This literature review contains the following subsections: traditional professional development, transformative learning, adult learning, theoretical framework, technology-based professional development and summary.

Traditional Professional Development

In the book *School: The Story of American Education*, Cuban (2001) describes how few research studies were conducted about classroom teaching and learning prior to the 1980's (Cuban, 2001). At both elementary and secondary levels, teacher-centered instruction was practiced into the early 1990's (Cuban, 2001). Even though classroom teachers employed some progressive approaches such as student portfolios and project-based teaching, many teaching strategies were conducted through the traditional method of transmissional learning (Cuban, 2001). McKenzie (1991) described transmissional learning or directed learning as the practice that subscribes to the belief that the instructor controls the diffusion of knowledge to learners who sit passively within the confines of a traditional classroom environment. Transmissional learning was not only the prevailing model for student learning, but was also utilized in the delivery of professional development to practicing K-12 teachers (McKenzie, 1991).

In a research study conducted by the National Center for Educational Statistics (NCES, 1999), top educational officials offered support for providing effective professional development to practicing teachers by finalizing Goal 4 of the National Educational Goals (National Education Goals Panel, 1990). Goal 4 stated

that, by the year 2000, the nation's teaching force would have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all students for the 21st century (NCES, 1999).

However, this same research indicated professional development was still predominantly delivered through traditional classroom workshops, conferences and summer in-services, provided by local school districts. These educational sessions were designed to meet short-term goals for implementing specific educational programs or change (NCES, 1999). Most teachers polled through a NCES Survey (1999), believed these types of practices did not provide continuity between what professionals learned and what occurred in classrooms and schools. Surveyed teachers believed this type of training would not likely produce any long-lasting effect on teacher competency or student achievement (NCES, 1999). Steiner (2000) supported this argument when suggesting that, after an initial professional development workshop, numerous follow-up and coaching sessions should be provided for teachers to implement a new practice successfully.

Although teachers were very critical about the design of traditional professional development, they believed that professional development, which included adequate follow-up and ongoing feedback from experts, provided the opportunity to learn by doing, and emphasized collaboration and reflection would probably connect better with their teaching practices (NCES, 1999). In addition, 81% of teachers who participated in the NCES (1999) research study agreed teaching

methods improved when instructors spent more than eight hours in a single professional development-learning situation. Instructional attributes that teachers suggested define effective professional development are the dominant factors in another type of learning process, grounded in constructivism called transformative learning. Transformative learning is believed to empower learners to become "experts at their own learning" (Palloff & Pratt, p. 143).

Transformative Learning

Many educational stakeholders embrace the premise that providing practicing K-12 teachers with quality ongoing education is one of the most effective strategies for increasing student achievement (Joyce & Showers, 2002; NSDC, 2001; Steiner, 2000). "Student learning is unlikely to improve without improvements in teaching, namely teachers' knowledge, skills, practices, and eventually, their attitudes and beliefs." (Steiner, 2000, p. 13) Merriam (2004) suggested that practicing teachers who are provided with high quality professional development designed to allow them to view knowledge through his or her values, beliefs and assumptions prepared the teachers to meet the challenges of educating children of the 21st century. Transformative learning is an example of an instructional process that, when effectively integrated into an active learning environment, allows teachers, as adult learners, the flexibility to differentiate and integrate new perspectives (Mizerow, 1991; Cranton, 1994; Merriam, 2004).

Transformative learning is the process that occurs when learners integrate new information, perspectives, or practices into a personal set of values as they engage

within a learning situation (King, 2004). When learners reflect upon what they have experienced, they may begin reevaluating personal values, beliefs, and assumptions. This reevaluation then results in either the process of reconfirmation of his or her current perceptions or the development of a new way of thinking (King, 2004). It is within this experience of developing new understandings and experiencing shifts in deeply rooted personal attitudes that transformative learning occurs (King, 2004).

Land and Hannafin (2000) and Hirumi (2002) reported, for professional development to embrace transformative learning, teachers as adult learners needed to receive opportunities to make choices and follow interests, which allowed them to become personally responsible for their own construction of knowledge. Knowles (1980) supported this assumption when suggesting adult learners were motivated to learn if they were responsible for personal decisions and perceived the learning would help them perform tasks that were relevant to the learners' own life situation.

Adult Learners

Thompson (2001) defined an adult as an individual who enters or is about to join the workforce. According to NCS (1999), practicing teachers display the characteristics that all adult learners possess. Adult learners are self-directed, goal-oriented, relevancy-oriented, practical, and have accumulated a foundation of life experiences and knowledge (Lieb, 1991). Blackmore (1996) reported these learning characteristics were generally different from children's pedagogies because

"…instruction for adults needs to focus more on the process and less on the content being taught. Instructors become facilitators or resources rather than lecturers." (Blackmore, 1996, para. 8)

Practicing teachers, as adults, not only possess different learning styles but they are also placed in the position of having to continue to learn and relearn their trade to prepare effectively all of their students for the demands of the 21st century (NCES, 1999). Teachers are required to learn how to incorporate research-proven instructional strategies that include the seamless integration of multimedia cognitive tools, collaborative and problem-solving activities, and critical thinking skills into classroom instruction (Jonassen, & Reeves, 1996). Speck (1996) noted professional development opportunities for teachers should include learning that is relevant to the adult learner's personal and professional needs; training which gives participants control over the learning goals, content, and setting; educational experiences that include relevant support from peers to reduce the fear of judgment during learning; instructional activities conducted in small-group activities; and constant facilitator feedback that alerts participants to how they are doing and assesses their efforts.

According to research conducted by Mouza (2002), professional development should be self-directed, organized around real problems of practice, and modeled after adult learning theories. Land and Hannafin (2000) and Hirumi (2002) concur that teachers as adult learners need to receive opportunities to make choices and

follow their own interests, which then allows them to become personally responsible for their own construction of knowledge. These qualities are found in the values and assumptions of constructivism.

Theoretical Framework

Self-directed or student centered-learning is considered part of the epistemological stance called pragmatism (Driscoll, 1994). Pragmatists believe that meaning is negotiated within a social context, which assists learners to build and interpret symbols for various understandings reflected through personal internalization of knowledge (Hirumi 2002). Constructivism emphasizes this type of active mind-engaging learning (Land & Hannafin, 2000). Although Land and Hannafin (2000) identify numerous forms of constructivism, these researchers suggest all formats share the following core values and assumptions:

- active construction of meaning;
- learner prior knowledge,
- social mediated learning;
- cognitive apprenticeships; and
- technology to provide the support needed by learners to deepen understanding of course content.

These attributes of constructivism embrace active adult learning that can be found in a transformative instructional process.

Constructing Learning

Self-directed learning environments provide the learner with the tools to construct meaning. Although there may be external learning goals, the learner determines how to proceed based on their individual needs and questions that arise during the instructional process (Land & Hannifin, 2000). Land and Hannifin (2000) noted transformative learning supported active learning environments by providing teachers with the opportunity to observe an authentic learning situation where knowledge, thinking, and context were joined with relevancy and learner application. Fidishun (2005) recently suggested that, for professional development to provide relevant learning, teachers as adult learners needed to know why they should learn something. Fidishun also reported that adult learners began to internalize knowledge when they took time to reflect upon the goals and expectations of the professional development and how it would help them to meet professional goals.

Prior Knowledge

Piaget, as quoted in Jonassen and Land (2000), proposed that learning occurred when background knowledge and experience were organized and assimilated with new understanding. Fidishun (2005) acknowledged professional development should include opportunities for teachers to use that knowledge and experience. Case studies, reflective activities, and collaborative activities can be effectively integrated into the transformative learning process. Transformative

learning also permits teachers to pull from their background for more inclusion, differentiation, and flexibility, which creates new perspectives (Mizerow, 1991; Cranton, 1994; Merriam, 2004).

Social Mediated Learning

Borthick, Jones, and Wakai (2003) define Vygotsky's (1978) Zone of Proximal Development (ZPD) as the blending of the cognitive and social aspect of learning without minimizing the importance of either. Socially mediated learning embraces Vygotsky's Zone of Proximal Development by creating a knowledge base that supports exploration, interpretation and negotiation between facilitators, experts and peers (Jonassen and Land, 2000). These interactions can model or scaffold reflection and performance among learners and are exemplified by practicing teachers as they amplify and extend cognitive capabilities, as well as redefine the thinking process (Jonassen and Land, 2000). In a research study, King (2004) noted the importance of social mediated learning by indicating that adult learners gave discussion, journal writing, and reflection the highest ratings for learning activities that influenced their attitudes and beliefs. Additionally, 88% of practicing teachers believed working collaboratively with another teacher, at least once a week, improved their classroom teaching (NCES, 1998).

Cognitive Apprenticeships

Cognitive apprenticeships is defined as combining knowledge with situated and embedded practice (Jonassen and Land, 2000). Hirumi (2002) reported adult learners who experienced cognitive apprenticeships were able to explore

specializations, solve real-world problems, and develop clearer interests and deeper knowledge skills. This is evident through the NCES Research Study (1999) which indicated 70% of teachers interviewed requested professional development that contained at least eight hours of in-depth subject or content instruction. Edelson, Pea, and Gomez (1996) also suggested transformative learning constructed knowledge through active participation in activities and dialogues with content experts at levels appropriate to learners' current competencies. This demonstrated how teachers that became more knowledgeable about subject content assimilated within the expert learning community and moved away from the level of practice (Bonk & Cunningham, 1996; Hirumi, 2002).

Technology

Snoeyink and Ertmer (2002) noted that although the constructivist approach can be effectively implemented without technology, the use of technology appears to encourage many teachers to experience learning through active participation. Additionally, technology used within a constructivist learning environment can facilitate understanding that may otherwise be difficult for many adult learners to comprehend (Land & Hannafin, 2000). For example, this can occur through visual learning tools that provide adult learners with the opportunity to construct models or objects, and then manipulate them through authentic learning situations (Jonassen & Land, 2000). Accordingly, Jonassen and Reeves (1996) reported technology integrated into self-directed learning environments amplified and reorganized a learner's thinking process. Jonassen and Reeves (1996) also believed technology

used as mindtools could extend teachers' cognitive function so they assumed ownership of their own knowledge construction.

Technology-based Professional Development

According to Schofield (1995) integration of technology into public schools has changed every aspect of K-12 education. These changes have impacted how students' access, internalize, manage, and communicate information in ways that were not possible only a few years ago (NSDC, 2001). Similarly, the integration of technology into professional development has changed the way practicing K-12 teachers are continuing their education (Grabowski, Spector, Klein, Visser, de la Teja, Sorensen, Song, Ganesan, Spannaus & Fields, 2003). Imel (1998) reported technology used with adult learners increased flexibility, provided access to expertise, and facilitated discussion among individuals who could not meet face-to-face, thereby reducing feelings of isolation and the building of community.

Achtemeirer (2003) proposed that effective technology-based learning environments for teachers should also reflect the exemplary instructional principles from *Seven Principles for Good Practice in Undergraduate Education* (Chickering & Gamson, 1987), as well as the revised model by Chickering and Ehrmann (2000). These instructional principles ensure professional development courses delivered through an electronic learning environment support rigorous content, technology and context standards (Archtemeier, 2003; Childs & Chrichton, 2004).

Moreover, Chickering and Ehrmann's (2000) instructional principles may be especially effective with practicing teachers, because they assimilate the

characteristics of effective adult learning. This is exemplified by enhancing adult learners' personal growth through the encouragement of learner-facilitator contact, permitting collaboration among learners to promote active learning, ensuring immediate response and feedback, emphasizing time on task, communicating high expectations, and supporting the diverse talents and learning styles of learners (Archtemeirer, 2003; Childs & Crichton, 2004).

One of the first forms of technology-based professional development was virtual education or online learning. According to Palloff and Pratt (1999), early forms of virtual learning often seemed to neglect the needs of human beings for support. However, recent online professional development is rapidly moving towards the development of effective small learning communities and the incorporation of better instructional practices (Palloff & Pratt 1999).

Online Professional Development

Online learning, as an extension of technology-based learning, has slowly become an accepted method for delivering educational instruction to both K-12 students and teachers (Palloff & Pratt, 1999). Online learning can embrace transformative learning by combining personal growth and intellectual growth so that they work together and allow the online participant to assume greater responsibility for "the learning process, competence, authority, self-confidence, and an overall sense of mastery and power." (Palloff & Pratt, 1999, p.131) The instructional framework of an online course provides a variety of learning activities through many multimedia formats that may not be available within a traditional learning environment. The

opportunities to learn via these diverse resources could help learners stay focused on an idea or concept, which in turn assists them in developing a new way to reflect on a learning concept or solve a problem (Palloff & Pratt, 1999).

In a study conducted by King (2002) several practicing teachers who participated within an online learning course for the first time revealed they were surprised by the extent and depth of communication within the online course. Many of the participants emphasized their satisfaction with the learner-to-learner dialogue and not just traditional teacher-to-learner communication (King, 2002). Most exchanges between course participants promoted serious discussion about content and sharing ideas (King, 2002). King (2002) believed this sense of community confirms research (Palloff & Pratt, 1999; Soules, 2001) that suggested, as an online course progressed, learners became more comfortable with other course participants and participated in collective thoughts and suggestions, which helped them successfully internalize course content.

However, King (2002) also noted that developing online learning experiences should not be one of merely revising existing curriculum to fit technology, but should also consider the needs of the practicing teacher as an adult learner. Lieb (1991) reported for adult learners to be motivated to learn, they must form a social relationship with other learners, comply with instruction from a formal authority, find personal satisfaction through achievement of a skill that may help them stay abreast of his or her peers, and experience some type of stimulation to seek knowledge for its own sake.

Even though some adults have had successful online learning experiences, Benson, Guy and Tallman (2001) indicated some learners felt they needed more face-to-face support from the course facilitator. These course participants also implied they missed the social aspect of learning when they were online and were unable to experience the physical face-to-face interaction with their peers (Palloff & Pratt, 1999). Finally, those course participants who had indicated low technology self-efficacy did not think the online learning experience met their expectations as well as those learners who entered the course confident about their technology skills (Benson, Guy, Tallman, 2001).

In research conducted by Cho and Berge (2002), other factors were identified as barriers to learning within a predominately online learning course. These factors were classified as: technical expertise, administrative structure, organizational change, evaluation/effectiveness, social interaction and quality, support services, fear of technology, access, and time. Recognizing that predominately online learning environments may not provide effective professional development opportunities to all practicing teachers, public school officials have begun to explore research and literature released through higher education institutions about the effectiveness of hybrid-based learning environments.

Hybrid-based Learning Environments

"The possibility of bringing theory and academic inquiry closer to the point of application may have many benefits for creating new knowledge and for the transfer of learning." (King, 2002, p.242) In the case of hybrid-based learning environments,

two divergent instructional methods, such as online and traditional classroom learning, can merge together to produce an effective and successful learning environment (Hopper, 2003). Skill and Young (2002) observed hybrid-based learning created an instructional learning environment redesigned from traditional processes so as to best leverage powerful in-class, face-to-face teaching and learning opportunities with the content richness and interactivity of electronic online experiences.

When first implemented, hybrid-based learning was associated with traditional classroom instruction enhanced with Internet-based activities (Smolka, 2003). According to Soules (2001), (between 1996 and 2000) research about hybrid-based learning focused mainly on how web-based activities enhanced classroom instruction. After analyzing students' and faculties opinions about the early hybrid-based college courses, it became evident to educational experts that a course that was originally designed for delivery in either a traditional or online framework needed to be redesigned for hybrid-based learning to embrace the best characteristics of both online and traditional classroom learning (Aycock, Garnham & Kaleta, 2002).

Dziuban, Hartman, and Moskal (2004) identified the characteristics a high quality hybrid-based learning course must possess once it is redesigned from the original instructional model:

- A shift from lecture to student-directed instruction.
- Increased interaction between student-instructor, student-student, student-content, and student-outside resources.

- Integrated formative and summative assessment mechanisms for learners and instructor.

Additionally, hybrid-based learning environments should not be viewed as a layering of learning technologies onto existing course learning activities or the practice of enhancing one environment with the best practices of the other (University of Calgary, 2004). Research from the University of Calgary (2004) also suggested that when designing an effective hybrid-based learning course, a reconceptualization of the instructional design was required. In a study by Schrittesser (2004), hybrid-based learning courses that are currently being implemented in higher education institutions included a fluctuation of reflection, collaboration, and real life experiences between the online and the traditional physical classroom activities. Beginning either in a classroom setting or online environment, learning occurred through the alternating critical phases of practice and analysis.

This was exemplified by the first phase, including content organization and preparation usually performed online, followed by further content presentation performed in the face-to-face classroom environment (Schrittesser, 2004). Follow-up discussions in the online learning format were supported by feedback and discussion that occurred in the face-to-face environment (Schrittesser, 2004). Finally, any additional information and reflection took place in the online learning environment followed by final course reflection occurring in the traditional classroom setting (Schrittesser, 2004).

Research from the University of Durham (2002) concurred when describing how hybrid-based learning's instructional design was an instructional model that included the practice of "chunking" or forming of sequential modules of learning. These modules moved learners from significant discussion online, through written reflections about the responses and the readings, to group or individual projects that were shared in a common learning space or through face-to-face presentations (University of Durham, 2002).

Although there is little research available about the use of hybrid-based learning in K-12 professional development, a research study by Martyn (2003) reported college students enrolled in a hybrid-writing course scored higher on their final course grades than students enrolled in the same course, but delivered in either a traditional classroom or completely online environment. Furthermore, Martyn (2003) confirmed college students believed a hybrid-based learning experience increased interaction with their instructor and provided a positive experience during collaborative activities with other hybrid course participants. King (2002) noted that based on research conducted in many higher education facilities, existing continuing K-12 professional development could be facilitated through hybrid-based learning environments.

Practicing K-12 teachers who have experienced difficulty with online learning could find success with hybrid-based learning environments because the application of content can be conducted in ways that promote the characteristics of successful adult learning (Dunkle, & Leite, 2004). Reflection exercises, online discussions,

simulations, and participation in negotiation of course goals are all proven techniques that lend themselves to the hybrid-based classroom, and are also motivational factors for adult learning (Leib, 1991; Dunkle, & Leite, 2004). Additionally, hybrid-based learning provides adult learners with a communication format that allows individuals to be able to ask questions and share responses in an environment that could be personalized and safe (King, 2002). Cultivating a learning community over time which encourages the sharing and implementation of new knowledge could help educators transfer course understandings into their everyday teaching practices (King, 2002).

Many practicing teachers describe the barriers that keep them from receiving relevant professional training opportunities as lack of time, lack of confidence or interest, irrelevant content, scheduling and transportation problems, and no community of support (Leib, 1991; Feist, 2003). Aycock, Garnham, and Kaleta (2002) suggested hybrid-based learning did not promote these types of learning barriers. In fact, hybrid-based learning courses may be rich in interaction that allows teachers to develop a sense of collaboration and ownership, thereby tearing down some of these roadblocks (Dunkle, Leite, 2004).

Research discussed within this chapter suggests hybrid-based learning environments, through the use of effective face-to-face and online instruction, can support adult learning practices. Based on this research, it is anticipated that professional development delivered through hybrid-based learning environments may provide the remediation teachers, as unique adult learners, need to feel comfortable

with course technology, overcome perceived learning barriers, and develop a strong understanding of the subject matter being taught.

Summary

Through continuing research from higher educational institutions, hybrid-based learning environments have been found to increase student achievement; satisfaction rates among faculty and students; support collaborative and authentic learning opportunities; and "student information literacy, providing students with new abilities that benefit them throughout their entire academic and employment careers." (Dziuban, Hartman, Moskal, 2004, p.3) Hybrid-based learning can embrace the active learning process of transformative learning which is grounded in constructivism. Transformative learning encourages adults to first integrate new assumptions into their world, then reflect, evaluate, and finally acknowledge what they have experienced (King, 2002). For the unique characteristics of adult learners, hybrid-based professional development courses can provide a learning experience that may be more effective than learning in either an online or face-to-face traditional learning classroom. For practicing K-12 educators who are also adult learners that continually train and retrain, hybrid-based learning can also provide timely feedback, learning by doing, collaboration with their peers, and thoughtful use of technology (Garnham & Kaleta, 2002; University of Calvary, 2004).

Unfortunately, there is little information about the use of hybrid-based learning in K-12 professional development. It is hoped that this research study documents whether practicing teachers who enroll in a hybrid-based professional

development course experience active learning, participate in collaborative reflective activities, and increase technology awareness. This research study investigates the overall perception of practicing K-12 teachers about their experience learning through a hybrid-based learning environment which is delivered under the theoretical premise established through this literature review. Specifically, this study examines whether teachers retain content knowledge and report a transfer this knowledge into their classroom practices. The analysis of data from the study will establish a baseline of information for further research into the effectiveness of hybrid-based K-12 professional development.

CHAPTER III. METHODOLOGY

Providing high quality professional development for practicing K-12 teachers has become a top priority for all public school administrators. Educational officials across the nation are seeking a professional training prototype that meets all national and state professional development, content, and technology standards; promotes student achievement; and supports the characteristics of effective adult learning. The purpose of this research study was to examine certificated K-12 teachers' perceptions about their experience receiving professional development delivered through a hybrid-based learning environment. Specifically, this research study was conducted to determine if K-12 teachers successfully build in course content knowledge and adapt the concepts being taught into their daily instruction.

This chapter will focus on the methodology that was utilized during the implementation of the research study and contains the following sections: sample, guiding questions, research design, research setting and procedure, instruments, data collection and analysis, pilot study, institutional review board approval, and summary.

Sample

The sample for this study was a sample of convenience. The study focused on collecting data from special education and regular curriculum educators employed by a school district located in a rural area of eastern Maryland who enrolled in a professional development course. Within this 373 square mile school district, there are approximately 443 certificated teachers who instruct 7,511 students in 13 schools.

Twelve certified teachers enrolled in the hybrid-based Assistive Technology Professional Development Course (ATPD) offered through a local public school system. Seven of the teachers had more than ten years of teaching experience; five had less than ten years of experience. Only four were special educators; the rest of the participants taught in regular curriculum content areas. All have received tenure from the school district.

Course participants were informed that participation in the study was completely voluntary and would have no affect on individuals' grades. All participants signed a written consent form. Study participants' confidentiality was addressed through both the requirements of the research study and the school district's confidentiality policies. Copies of the approval notices from Queen Anne's County Public Schools and Towson University's Institutional Review Board (IRB) are located in Appendix A.

Guiding Questions

This mixed methods study was designed to explore the following overall question: Is a hybrid-based professional development environment a viable instructional model for practicing K-12 teachers? To specifically understand the effectiveness of hybrid-based professional development, the following questions were used to guide this study and analyze data.

1. To what extent does this professional development course exemplify the characteristics of a high quality hybrid-based learning environment?
2. Will K-12 teachers develop an increase in understandings of course content

after completing a hybrid-based professional development course?

3. How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional practice?

4. Through the interview process, how do participants evaluate and describe the positive attributes, benefits, and problems they experienced learning within a hybrid-based environment?

Each guided question was further divided into subquestions in order to assist the researcher conduct a more in-depth analysis of study data gathered from a variety of qualitative and quantitative instruments. The subquestions for each guided question are listed in Table 1.

Table 1

Guiding Subquestions

Question	Subquestion
1	1.1 To what extent did course participants acknowledge that the ATPD course's overview and introduction met high quality hybrid-learning standards?
	1.2 To what degree did course participants acknowledge that the ATPD course's goals and objectives were clearly defined and measurable according to high quality hybrid learning standards?
	1.3 To what extent did course participants acknowledge that high quality hybrid learning standards were reflected through meaningful learning and support within the ATPD course's instructional model?
	1.4 To what extent did course participants acknowledge that course resources and materials were comprehensive and reflected high quality-hybrid learning standards?

Table 1 (Continued). Guiding subquestions

Question	Subquestion
	1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology fostered learning and interactivity?
2	2.1 Did course participants indicate an increase in the building of course content knowledge?
	2.2 Did participants indicate a significant increase in the building of course content knowledge (p>.05)?
	2.3 Did participants indicate that course technology assisted in building of course content knowledge?
	2.4 Did participants indicate that the course's hybrid-based learning environment assisted them in building course content knowledge?
	2.5 Did participants indicate that the course's facilitator assisted in their building of course content knowledge?
3	3.1 Was there any evidence that participants had transferred course content knowledge into their instructional practice?
	3.2 Was there any evidence that participants transferred course information to other teaching professionals?
4	4.1 During the interview process, to what extent did course participants describe the positive attributes of a hybrid-based learning environment?
	4.2 During the interview process, to what extent did participants express specific concerns about learning in a hybrid-based instructional environment?
	4.3 During the interview process, what perceptions did participants express about hybrid-based learning and what recommendations did individuals suggest about professional development delivered through a hybrid-based learning environment

Research Design

This research study implemented a mixed-methods strategy called concurrent triangulation (Creswell, 2003). Concurrent triangulation is a model that utilizes both qualitative and quantitative methods to cross-validate findings within a single study (Creswell, 2003). This approach was selected by the researcher to minimize the threat to the internal validity of the data gathered during the research study. By using both quantitative and qualitative methods during various points in the research study's data collection process, the investigator is able to strengthen the validity of data and decrease the weaknesses of any single method (Creswell, 2003). More rigorous research is created when using a variety of data collection methods (Patton, 1990). Using the concurrent triangulation approach also allows the investigator to modify or expand the evaluation design and/or data collection methods. When this occurs, the investigator may uncover inconsistencies and discrepancies that may need to be reexamined. A multi-method approach to evaluation can also increase both the validity and reliability of evaluation information (National Science Foundation, 1997).

Research Setting and Procedures

As noted earlier, this study was implemented through the ATPD course. Prior to conducting the study, the ATPD course was evaluated for high quality hybrid instruction (discussed further in the pilot study section on page 67). The ATPD course was open to all practicing teachers. The classroom portion of the ATPD course met for three hours at the completion of the school day. As defined by its

hybrid characterization, for nine weeks this course was conducted 50 percent online and 50 percent in a traditional classroom setting. During the first class, course participants received an overview about the research study. Course participants were also given written and verbal assurances that participation was strictly voluntary and would not affect their final grade. All course participants consented to participating in the research study.

As part of the course agreement, participants who successfully completed the ATPD course received three Maryland State Department of Education (MSDE) credits and a $200.00 stipend from the local school system. This stipend came from a Maryland State Competitive Technology Grant called Project Open. Through a consortium of nine public school systems (which included the research site's school district), funds were made available for teachers who successfully completed either a hybrid or completely online professional development course.

The facilitator of the ATPD course had an advanced degree in special education and was an expert in Assistive Technology. The same facilitator was also the instructor of the piloted ATPD course, which was conducted in the Fall of 2004. The facilitator did not have any formal training in online instruction.

The study began in late Spring, 2005 and was completed by Summer, 2005. The ATPD course consisted of seven online learning modules and eight face-to-face modules. Each Monday during the course, participants met in a traditional classroom for three hours. During the following six days of each week, course participants took

part in online collaborative activities, discussions forums, and self-reflection opportunities, using the course management system (CMS), Desire2Learn.

During the online sessions, the facilitator posted readings that required reflections, first from individual participants, then from groups. These groups were also responsible for completing case-based assignments. All course activities and materials, whether offered through online or traditional instructional forum, were developed to support Maryland professional development, content and technology standards.

The other 50 percent of the ATPD course learning modules were conducted via the traditional classroom-learning environment. Face-to-face meetings were held in a district computer lab and the participants took part in authentic applications of assistive technology hardware and software purchased and licensed by the school district. Participants also met in groups to complete problem-based and case-based activities. Moreover, during the first two traditional classroom meetings, course participants received a demonstration and were given time to practice with the CMS, Desire2Learn. Learning of content knowledge was assessed through formative and summative evaluation instruments. A copy of the course syllabus is included in Appendix B.

Prior to the beginning of the ATPD course, participants completed a technology self-efficacy survey to determine their level of technology proficiency and also to assist the facilitator in creating participant groups that included individuals with varied technology abilities. During the first face-to-face class, research data

were gathered using the Assistive Technology Content Pre-Test Post Test (ATCPT). Upon the completion of each learning module, all course participants were required to individually complete five End of Learning Module Reflection Questions (ELMQ) that provided a snapshot in time of participants' perceptions about the ATPD course. At the end of the course, the ATCPT was again administered along with the Assistive Technology Exit Survey (ATES) and the Hybrid-Based Professional Development Course Review Rubric (HPDR). The collection of data from the ELMQ, and ATCPT was conducted through the CMS. The HPDR and ATES were administered using traditional print copies.

Additionally, research participants were required to take part in a post-interview activity. These individual interview sessions included 25 open-ended questions (IGQ) and were conducted by the researcher three weeks after the ATPD course was completed. The IGQ gave the researcher an opportunity to elicit study participants' perceptions about the hybrid-based professional development course and also document if participants indicated that they were transferring course knowledge into their classroom teaching strategies.

Instruments

Throughout this study, data were collected using the following instruments: the Hybrid-Based Professional Development Course Review Rubric (HPDR), Assistive Technology Content Pre-Test Post-Test (ATCPT), End of Learning Module Reflection Questions (ELMQ), Assistive Technology Exit Survey (ATES), and Interview Guide Questions (IGQ). Each instrument is described below.

Hybrid-Based Professional Development Course Review Rubric

The HPDR quantitative instrument was designed by the researcher for the purpose of assessing the Assistive Technology Professional Development (ATPD) course and to determine if it met Maryland technology, professional development, subject content, and high quality hybrid learning standards. Macdonald & Twining (2002) suggested that there was a relationship among assessment, student participation, and the development of skills. They concluded: assessment must reflect course philosophy, assessment is essential in creating learning opportunities, and assessment provides a vital opportunity for feedback. Accordingly, the HPDR became the standard for assessing high quality hybrid-based learning as it was presented through the ATPD course.

The HPDR was adapted from an online course rubric that was originally developed by Maryland's community colleges through a federally-funded collaborative group called Quality Matters. This group of higher education officials was charged with the research and development of a rubric that would evaluate and set the standard for college online courses. The Quality Matters rubric went through numerous revisions and validation by the members prior to its selection by this researcher.

After permission was given by the Quality Matters group, the researcher asked 14 individuals from the fields of online and hybrid learning, instructional technology and curriculum development in higher and public education, to analyze the internal validity of the rubric. The HPDR went through five different revisions before the

instrument was adopted to be utilized as a quantitative tool that would measure not only Maryland technology, professional development, and subject content standards, but also the presence of high quality, hybrid based learning. Upon adoption of the HPDR and prior to conducting the piloted ATPD course, a different group of individuals that represented the fields of assistive technology, special education, online learning, and instructional technology applied the HPDR to the ATPD course prototype. The HPDR results for the pilot ATPD course can be found in Appendix J. Based on these HPDR results, some modifications were made to the ATPD piloted course. Modifications included more instructor time with course participants and the addition of a grading rubric for the course. The HPDR was also used by study participants in the Spring of 2005, during the last learning module of the ATPD course in order for the researcher to ascertain the extent that participants perceived the ATPD course embraced high quality, hybrid-based learning. Study participant results can be found in Appendix J. The HPDR instrument can be found in Appendix C.

The HPDR includes eight categories of individual performance outcomes. The individual performance outcomes are weighed according to the following 3-point scale.

- 3-pt= critical performance outcomes (required if the course is considered high quality learning)
- 2-pt= important performance outcomes (should be present if the course is considered high quality learning)

- 1-pt=additional performance outcomes (good to include but not required)

The maximum points awarded through the HPDR are 90 points. In order for the HPDR to determine if a professional development course reflects high quality hybrid-based learning characteristics, all 3-point performance outcomes located in the eight categories must be met and at least 75 points indicated by all evaluators.

The HPDR is broken down into eight categories. The purpose of Overview and Introduction, category I, which consists of eight performance outcomes, is to determine if participants' perceptions about the ATPD's introduction activities and materials such as navigation instructions, syllabus, course information, netiquette, learning activities appropriateness for mode of instruction, course technology, and facilitator communication support high-quality hybrid-learning. The maximum number of points available for category I is 16. Three of the performance outcomes are required 3-point indicators of hybrid-based learning.

The purpose of Maryland Standards, category II, is to determine if participants believe the Maryland Teacher Professional Development Standards, Maryland Teacher Technology Standards and Maryland Content Standards are present in the ATPD course. The maximum number of points for the three performance outcomes is 9. All three of the performance outcomes are required 3-point indicators of high quality hybrid-based learning.

The purpose of Learning Objectives, category III, which consists of five performance outcomes, is to determine if the ATPD's learning objectives are clearly stated, address content mastery, include instructions on how to meet them, and are not

redundant in tasks or course activities. The maximum number of points available for category III is 12. Two of the performance outcomes are required 3-point indicators of high quality hybrid-based learning.

The purpose of Assessments and Measurement, category IV, which consists of six performance outcomes, is to determine if the ATPD's assessments are consistent with course activities, the grading policy is easy to understand, assessments provide feedback, the types of assessments are appropriate for the mode of delivery, submissions of assessments are appropriate, and learners are allowed to evaluate content. The maximum number of points available for category IV is 13. Two of the performance outcomes are required 3-point indicators of high quality hybrid-based learning.

The purpose of Learner Interaction and Support, category V, which consists of five performance outcomes, is to determine if the ATPD course includes clear standards for facilitator, provides a variety of hybrid activities that are clearly articulated, and contains information on how to obtain academic information and tutorials. The maximum number of points available for category V is 11. Two of the performance outcomes are required 3-point indicators of high quality hybrid-based learning.

The purpose of Resources and Materials, category VI, which consists of three performance outcomes, is to determine if the ATPD course's resources and materials have depth and content and are appropriate for content delivery. The maximum

number of points available for category VI is 6. One of the performance outcomes is a required 3-point indicator of high quality hybrid-based learning.

The purpose of Course Technology and Instructional Design, category VII, which consists of eight performance outcomes, is to determine if the ATPD course technology and media enhance interactivity and active learning; provide operational links; are compatible with hybrid-learning, and include online modules that are consistent, follow design convention, and require no horizontal scrolling. The maximum number of points available for category VII is 17. Three of the performance outcomes are required 3-point indicators of high quality hybrid-based learning.

The purpose of Section 508 Compatibility (the Section of the Assistive Technology Act of 1998 that requires all web sites to be accessible for persons with disabilities), category VIII, which consists of three performance outcomes, is to determine if the ATPD course meets Section 508 requirements. These requirements necessitate web pages provide alternative methods of access for auditory and visual content. The maximum number of points available for category VIII is 6. One of the performance outcomes is a required 3-point indicator of high quality hybrid-based learning.

Assistive Technology Content Pre-Test Post-Test

The ATCPT was a quantitative instrument's used to collect data about the extent that course participants built course content knowledge. Phipps & Merisonis (2000) suggested analysis, synthesis, and evaluation activities are key activities of

active learning and should be part of an online course's requirements. The ATCPT was conducted through the CMS, Desire2Learn during the first and last ATPD course learning modules. Twenty multiple choice questions were compiled by the facilitator, an expert in assistive technology (AT), that are indicative of all aspects of the AT content that was taught during the ATPD course. ATCPT questions 1 to 11 are designed to assess course participants' basic knowledge about assistive technology terminology and software. ATCPT questions 12 to 20 are designed to assess participants' knowledge about assistive technology processes and legal issues.

The ATCPT was reviewed by 16 experts in the field of assistive technology. These individuals represented higher education institutions, K-12 special educators, administrators, and professional experts. The ATPD was adopted after the instrument went through five review and modification stages. The split-half technique for establishing an internal consistency was applied using a statistical analysis package (SPSS). The resulting correlation coefficient provided an estimate of the degree to which the two halves of the test were performing their functions consistently. The Spearman-Brown formula was then applied to determine the correlation between both halves of the test. The pre- and post-test instrument were found to have a reliability coefficient of r = .891. The ATCPT can be found in Appendix D.

Assistive Technology Exit Survey

The ATES was a quantitative instrument designed to collect data about course participants' attitudes pertaining to the use of technology within the ATPD course, how the hybrid course experience would affect teacher classroom teaching strategies,

and transference of knowledge to other teaching professionals. Swan, Shea, Fredericksen, Pickett, & Pelz (2000) studied the relationship between participants' perceptions and course design factors. They found that consistency in course design, contact with course facilitators, and active discussion were key for participants' success. The ATES was implemented during the last learning module of the ATPD course. The 15 question ATES was administered to course participants using a printed format.

The ATES survey requires course participants to respond using a five point Likert-type rating scale: 1=Strongly Disagree, 2-Somewhat Disagree, 3=Neutral, 4=Somewhat Agree, 5=Strongly Agree. ATES questions 1 to 9 are designed to collect information regarding participants' attitudes pertaining to all aspects of the ATPD course technology. ATES questions 10 and 11 are designed to collect information about participants' perceptions about the hybrid approach. ATES questions 12 to 15 are designed to collect information about how participants' report transference of course content knowledge into classroom teaching strategies and to other teachers.

ATES questions were adapted from the *Hybrid Teaching and Learning Survey* created by the University of Wisconsin-Milwaukee. The University of Wisconsin-Milwaukee's Technology Learning Center was contacted and permission was given for the use of the instrument in whole or part. The reliability coefficient for the survey was determined through the statistical analysis package SPSS. In this study,

the ATES was found to have Cronbach alpha reliability score of r = .768. A copy of the ATES can be found in Appendix E.

End of Learning Module Questions

The ELMQ is a qualitative instrument designed to collect data that represent a snapshot in time of particular behaviors and attitudes experienced by course participants during both the online and traditional classroom learning modules. Participants were not required to answer all five questions; however, they were expected to respond to at least three of the reflection questions with insight and depth. All questions were posted after the completion of each of the 15 learning modules through the CMS. Once course participants gave feedback, the results were compiled and available to the course facilitator and researcher online within the CMS ATPD course statistics. Anderson (2003, 2002) noted that increased participant control and participants' needs to tailor a course based on their input, as well as opportunities for meaningful collaborative among learners, is a result of increased interactive activities. The ELMQ questions are based on an assessment that is part of an evaluation instrument that Maryland's Project Open is currently using to assess online professional development courses. Permission was given by the consortium of Maryland counties that are part of this grant for the use of these questions in this research. ELMQ questions can be found in Appendix F.

Interview Questions

The qualitative instrument IGQ utilized a 25-question in-depth interview guide. The purpose of the open-ended interview questions is to collect data about

each participant's experience learning through a hybrid-based learning environment. These questions are consistent with Muirhead's (2000) suggestion that interactive activities that might encourage learner-learner interaction included the sharing of relevant personal experiences, reference to appropriate course materials, comments on the opinions of others, introduction of new issues for discussion, and questions posed to the group by other participants or the course facilitator. The IGQ sessions were conducted three weeks after the course was completed.

Table 2

IGQ Questions

Questions	Themes & Context
2 - 5	participants' issues and concerns experienced during the ATPD course, as well as how participants have addressed these concerns
6 – 9	participants' perceptions about the hybrid experience as it pertained to course technology, instructional design and course technology
10 – 12	participants' perceptions about the online learning modules
13 - 15	participants' perception about the support infrastructure and building of community that developed during the ATPD course
16 - 18	participants' perceptions about the transference of course content knowledge into classroom instructional practices
19 - 20	participants' perceptions about the transference of ATPD course content knowledge to other teaching professionals
21 - 25	participants' descriptions, reactions and recommendations about their experience learning through the hybrid-based ATPD course

Interview questions covered all aspects of the hybrid-based learning experience and the transference of knowledge into classroom instructional practices. The first section of the IGQ was designed to collect information about participants' demographic data and reasons for enrolling in the ATPD course. The rest of the IGQ questions and the themes and context they address are listed in Table 2. After interview sessions were conducted with the ATPD piloted course participants the IGQ went through three review and modification stages. An expert in qualitative methods also reviewed the final version of the IGQ. A copy of the IGQ can be found in Appendix G.

Two of the five research instruments, the ELMQ and ATCPD, provided the course facilitator with participant assessment data which was used for course grading purposes. Data collected from four evaluative instruments (ELMQ, ATCPD, HPDR, and ATES) also became part of the ATPD course summative and formative evaluation procedure. The IGQ was the only instrument not used by course designers to evaluate the ATPD course, because of the confidential nature of participant responses to the interview questions.

Data Collection and Analysis

All qualitative and quantitative data collected during the research study were analyzed using the concurrent triangulation strategy. This approach allows for open coding of all qualitative data that are then categorized and triangulated with quantitative results. Open coding permits the researcher to identify, and then categorize, chunks or segments of information about the phenomenon being studied.

Within each category, the researcher can seek evidence of underlying themes and contexts (Creswell, 1998). Concurrent triangulation of data occurs during the first phase of research and provides the researcher with a process that verifies the results from mixed methodologies to reduce researcher bias and provide a better assessment generality of the findings and conclusions (Wetzel, 2001). "Typically, this process involves corroborating evidence from different sources to shed light upon a theme or perspective." (Creswell, 1998, p. 202)

Qualitative data from the IGQ were collected from all participants during interview sessions conducted three weeks after the completion of the ATPD course. Study participants' responses were recorded via audiotape and then transcribed into a digital and print format. Qualitative participant responses collected from the IGQ and the ELMQ were coded based upon themes that became apparent to the researcher during the preliminary reading of all qualitative data. The specific codes assigned to the various content themes became the basis for the Master Content Code (MCC). The MCC is designed to group and code participant responses collected through the IGQ and the ELMQ into the following four categories: guiding questions, qualitative research instrument, topic, and themes.

Table 3 shows a sample from the MCC and identifies the components of the MCC. The Guiding Question (Q1) represents the research question the data are linked with, the format of the qualitative instrument (EM= End of Learning Module, I= Interview) represents how the data were collected, the topic category (i.e. CO= Course Overview & Introduction, S=Standards) represents the specific overall context

of the data, and the theme (syllabus= 1.2) represents specific classifications of information found within each subject.

Coded participant responses were then entered into the Guiding Question Databases (GQD), created for each guiding question and the corresponding data. By categorizing the qualitative data, the researcher is able to do an accurate analysis and identify trends in participants' perceptions about the ATPD course. The qualitative data were classified within the GQD according to the guiding question's record

Table 3

Sample Master Content Code

Guiding Question	Format	Topic	Themes	Content Code
Q1	I	CO	Syllabus (1.2)*	Q1ICOS-1.2
Q1	EM	S	Meets Maryland Technology Standards (2.2)	Q1EMST-2.2

Note. * Numbers in parentheses represent HPDR specific performance indicators. The final Content Code is the assigned identification code for each of the course participants' responses. A copy of the MCC can be found in Appendix H.

identification number (GQRI); participant's identification code (P); master content code (MCC); participant comments (PC); themes (TH); years teaching (YT); teaching specialty (special educator=SP, regular educator = R); whether the participants' comments were positive; negative or neutral (PNE); and other online experience (OOE). Table 4 shows a sample from the GQD. Coded qualitative data pertaining to guiding question one is exemplified within this sample. A sample of the Guiding Questions Database (GQD) can be found in Appendix I.

Table 4

Sample Guiding Question One Database

GQRI	P	MCC	PC	TH	YT	R/SP	PNE	OOE
1.1	1	Q1ILISIR-5.2	The instructor is good and patient	Facilitator Support	14	SP	P	No
1.2	5	Q1EMSIR-5.2	The instructor was always available	Facilitator Support	4	R	P	No
1.3	8	QI1ICOE-1.4	People waited to post not good for others	Discussion	18	SP	N	Yes

Quantitative data collected from the ATES, HPDR, and ATCPT were analyzed through a statistical analysis package (SPSS). For the ATCPT, a One-Sample T-test was applied to determine if research participants demonstrated any significant increase in the building of course content knowledge ($p < .05$). The One Sample T-Test was also applied to participant groups of less than 10 years teaching, over 10 years teaching, and the areas of teacher specialty (special education, regular curriculum educator). To determine if there was any significant increase in course content knowledge for each demographic group, the mean increase between pre-test and ATCPT post-test results was also analyzed.

The 15 ATES questions were run through the statistical analysis package SPSS to determine the mean scores based on a Likert type scale of 1-5. Quantitative data collected from the HPDR's eight categories of performance outcomes were

analyzed by determining the percentage of points for each HPDR category and performance outcome. Data results for the ATCPT, ATES and HPDR can be found in Appendix J.

Once both quantitative and qualitative data were compiled, the researcher further divided each guiding question into subquestions based upon themes that became evident during the data collection process. Creswell (1998) noted that, after an initial general review of all information, specific areas of inquiry or subquestions may develop. Guiding question one includes five subquestions; guiding question two, five subquestions, guiding questions three and four, three subquestions. These subquestions assisted in the triangulation and final analysis of all data results in order to assist the researcher from misinterpreting pertinent study information.

Triangulation is the process that allows the researcher to use both quantitative and qualitative data to clarify meaning and support interpretation of results (Creswell, 2001). For the purpose of triangulation and cross-validation of data, the researcher utilized Guiding Question Triangulation Worksheets (GQTW). The GQTW can be found in Appendix K.

Once all data were entered into the GQTW, the researcher began to analyze results focusing on the relationships and connections of participants' perceptions that developed during their course experience. The researcher used a concept map or Decision Making Matrix (DMM) to further organize results around a specific guiding question and subquestions to determine the strength of participants' perceptions about a particular theme or context and support conclusions.

The DMM measurement scale for guiding question one was developed based upon the distribution of HPDR scores divided into quartiles. Scores that lie above the third quartile were considered strong indicators. Scores that lie between the second and third quartile were considered moderate and those scores between the first and second were believed to be weak indicators (Isaac & Michael, 1997).

The DMM measurement scale for guiding subquestion 2.1 was developed based on a comparison of the ATCPT scores with the Normal Curve Equivalent Conversion (NCES). Based on the NCES conversion chart, 60% and above was considered a strong indicator, between 35% and 60% a moderate indicator, and below 35% a weak indicator of an increase in ATPD course participants' building of course content knowledge (Isaac & Michael, 1997). The DMM can be found in Appendix L.

Example

DMM Implementation Sample

For example, to arrive at the final analysis of guiding question 3, subquestion 3.1, the researcher compared qualitative data collected from the ELMQ and the IGQ with the criteria for each DMM indicator to determine what scale of measurement is the most accurate. The behavior indicators selected were identified by participants' responses and the physical evidence contributed during his or her IGQ interview sessions. Table 5 shows the DMM whose criteria best applies to guiding question 3.1.

According to the indicator that best fits data results for guiding question 3, subquestion 3.1, participants acknowledged numerous evidentiary artifacts of

transference of ATES course content knowledge into their instructional practices. Therefore, the researcher would conclude that there was a strong level of transference of ATES course content knowledge in the participants' classroom practices.

Table 5

Sample Decision Making Matrix

Sub Question 3.1	Scale	Indicator*
Was there evidence that participants transferred course content knowledge into his or her instructional practice?	Strong transference	Participants indicated numerous evidentiary artifacts of transference of course content knowledge.
	Moderate transference	Participants indicated some evidentiary artifacts of transference of course content knowledge.
	Little transference	Participants indicated little evidentiary artifacts of course content knowledge.
Data Source End of Learning Module Interview Guiding Question	No transference	There was no indication of transference by participants of course content knowledge into his or her instructional practice.

Note. *Indicators are based on the behaviors that participants indicated during the interview session conducted three weeks after the end of the ATPD course.

Once this procedure was completed for guiding question 3, subquestion 3.1, the researcher repeated the analysis process for guiding question three, subquestions 3.2 and 3.3. After all subquestions were analyzed, the researcher was able to conclude, with some degree of accuracy, if the ATPD course participants

demonstrated a strong level of transference of course content knowledge into classroom instructional activities (Guiding question three).

The concurrent triangulation approach that guided data collection and analysis techniques was selected by the researcher in order to limit the potential threat to the internal validity and reliability of study procedures. To further ascertain the validity and reliability of this study's research design and instruments, a pilot study was conducted prior to the formal research investigation.

Pilot Study

The data, research design, and strategies for this study were piloted during the Fall, of 2004. The data collected and analyzed from this pilot served as a model for this research study. Eleven general and special education teachers were enrolled in the fall course and participated in the pilot study using the same quantitative and qualitative instruments and data collection and analysis processes that were described in the previous section. All course participants signed a written consent form. Study participants' confidentiality was addressed through both the requirements of the pilot study and the school district's confidentiality policies.

The piloted ATPD course was conducted 50% online and 50% in the classroom. The piloted course ran for 15 weeks with the traditional classroom conducted one week and the online learning module conducted during the following week. After the piloted course had ended evaluation from participants recommended that the course be shortened with the online learning module conducted during the same week the classroom learning module was offered.

Data were collected from participants using the ATCPT, ELMQ, ATES, and IGQ. The ATCPT and ELMQ were administered through the CMS. The ATES was not conducted through the CMS but rather by print. Upon completion of the piloted course, interviews were conducted using the IGQ. However, only four individuals out of the eleven course participants participated in the interview process. Additionally, the piloted ATPD course participants did not use the HPDR to evaluate the course. The use of the HPDR by study participants was a recommendation from experts that was added to the research study that was conducted in the Spring of 2005.

Once quantitative data were collected through the ATCPT and ATES, analysis occurred through the statistical analysis package SPSS. Qualitative data were collected from the ELMQ and the IGQ then entered into a Guiding Question Database. Final analysis of the data were conducted and shared with the ATPD course designer and the instructor to clarify and revise certain areas of the ATPD course that were in need of improvement.

Similar to the recommendation that the HPDR instrument be utilized by research study participants to analyze the ATPD course for high quality, hybrid-based learning, other changes were also made to course design, the description of what was expected of students, and the analysis process. Assessment items that were added included the creation of the Guiding Question Triangulation Worksheets and Decision Making Matrix in order to assist the researcher to triangulate and interpret data results.

Institutional Review Board Approval

Participation in this study was strictly voluntary and the participants were fully informed of the research project and its intentions. This research proposal has been approved by Towson University's Institutional Review Board (IRB) for Research Involving the Use of Human Participants (approval number: 05-A043) on February 15, 2005. In addition, the Associate Superintendent for Queen Anne's County Public Schools (QACPS) approved this study which was conducted during the ATPD course with certificated county personnel. Copies of the approval notice from QACPS and Towson University are located in Appendix A.

Summary

This study was approved by Towson University's Institutional IRB, approval number 05-A043, on February 15, 2006. The study evaluated, based on a mixed methods approach, the effectiveness of professional development for K12 teachers delivered through the hybrid-based Assistive Technology Professional Development (ATPD) course. The study implemented a mixed-methods strategy called concurrent triangulation. Concurrent triangulation was selected by the researcher to minimize the threat to the internal validity of the data gathered during the research study. A pilot study was conducted in order to further limit the threat to the internal reliability and validity of this study's research design and instruments.

The setting for this study was the ATPD course, offered 50 percent of the time online and the other 50 percent in a traditional classroom. Twelve certificated teachers (four special educators, eight regular curriculum educators) who have

various years of experience (five teachers had less than ten years experience, seven had more than ten years) and teach in a rural Maryland K-12 public school system consented to participate in this study.

The quantitative data for the study were collected from the ATES, ATCPT, and the HPDR. Qualitative data for the study were collected from participants through an interview (IGQ) session conducted three weeks after the completion of the ATPD course. The other qualitative instrument utilized to collect data was the ELMQ.

Once qualitative data were collected from the ELMQ and IGQ, they were coded using the MCC, then classified and entered into the GQD. Quantitative data from the ATES, ATCPT, and HPDR were entered into the statistical analysis package SPSS. Both methods results were also entered into the GQTW to assist with the triangulation process. The researcher applied the themes and context that were prevalent during the triangulation process to the criteria for each DMM indicator. The DMM indicators assisted in the final analysis of each of the four guiding questions. Upon completion of the analysis of all four guiding questions, the researcher was able to conclude, with some degree of confidence, participants' perceptions about the hybrid-based ATPD course.

CHAPTER IV. ANALYSIS AND RESULTS

This research investigated overall teacher perceptions about the effectiveness of professional development delivered through a hybrid-based learning environment. The following results include descriptive statistics about the research participants as well as data results pertaining to the four guiding questions. This chapter consists of the following sections: descriptive statistics, guiding question one, guiding question two, guiding question three, guiding question four, and summary.

Descriptive Statistics

The first section of the Interview Guide Questions (IGQ) was designed to collect demographic information about the Assistive Technology Professional Development (ATPD) course participants. Descriptive statistics consist of course participants' personal information, teaching experience, teaching specialty and level, experience with hybrid and online learning, reasons for taking the course, and technology competency.

Description of Participants

All 12 participants who enrolled in the ATPD completed the course (100%). Two (17%) of the participants were male; 10 (83%) were female. Five (42%) participants held master's degrees, three (25%) bachelor's plus 30 credits and four (33%) participants were working towards their Advanced Professional Certification (APC). All were tenured by the local school system. Seven participants (58%) taught more than 10 years; five (42%) had taught less than 10 years. Four (33%) participants were certified as special educators; eight (67%) were considered regular

curriculum teachers. Eight (67%) participants taught at the elementary level; four (33%) taught at the middle school level. There were no high school teachers enrolled in the ATPD course. Ten (83%) of the participants had no previous experience with online learning or hybrid-based professional development. Of the two (17%) teachers who had virtual learning experience, one has taken a professional development course through a completely online course and one course through a hybrid-based environment; the other had taken a professional development course delivered through a hybrid-based learning environment. Both of these professionals had less than 10 years of teaching experience. Statistical data about course participants are listed in Table 6.

ATPD course participants' reasons for taking the course ranged from those individuals who were very interested in learning more about assistive technology to those who were enrolled solely for the purpose of receiving course credits and applying credits towards their teaching recertification. Two teachers reported they took the course primarily because the ATPD classroom was located at the same facility where they taught. One teacher was interested in the online classroom component.

When course participants were asked to rate their technology self-efficacy, prior to completing the course, 12 (100%) were comfortable with email and using a word processing program. Although 10 out of 12 (83%) were comfortable with searching the Internet, only 6 out of 12 (50%) were comfortable downloading information from the Internet. Additionally, 5 out of 12 (42%) teachers felt they were

somewhat comfortable using a threaded discussion. All of the participants who felt somewhat comfortable with threaded discussions had less than 10 years teaching experience.

Table 6.

Study Participants' Statistical Data

Participant	Gender	Teaching Experience*	Specialty**	Level ***	Education
P1	F	14	SP	E	Masters
P2	F	20	SP	E	Masters
P3	F	18	R	E	Bachelors+30
P4	M	3	R	S	Bachelors
P5	F	12	SP	S	Bachelors+30
P6	F	3	R	S	Bachelors
P7	F	10	R	E	Bachelors
P8	F	16	R	E	Bachelors+30
P9	F	13	SP	E	Masters
P10	F	4	R	S	Masters
P11	F	6	R	E	Masters
P12	M	4	R	E	Bachelors

Note: * Denotes years of teaching experience, ** Denotes teaching specialty, SP = Special Education, R = Regular curriculum, *** Denotes the grade level participants teach, E = Elementary, S = Secondary

Finally, all ATPD course participants (100%) completed the Assistive Technology Exit Survey (ATES), the Hybrid-Based Professional Development Course Review Rubric (HPDR), Assistive Technology Course Pre-Test Post-Test (ATCPT) and the End of Learning Module Questions (ELMQ). However, upon completion of the course, one individual transferred to another school system before

the IGQ (Interview Guide Questions) sessions were conducted. Therefore, 11 (92%) of the interview transcripts were available for final analysis. All participants' quantitative and qualitative data have been collected, classified, triangulated, and analyzed to answer each individual guiding question. Each guiding question was further divided into subquestions which provided an in-depth analysis of the issues raised by each question.

Guiding Question One

To what extent does this professional development course exemplify the characteristics of a high quality, hybrid-based learning environment?

The importance of determining if the ATPD course exemplified high quality, hybrid-based learning characteristics (as defined by the HPDR) is relevant to this study about the effectiveness of hybrid-based professional development. Subquestions were compiled to provide a more comprehensive study of guiding question one's data and are found in Table 7.

Quantitative research data pertinent to answering guiding question one and its subquestions were collected through HPDR performance outcomes and ATES questions 1 through 10. Qualitative data were collected from the IGQ and the ELMQ and triangulated with quantitative results through the Guiding Questions Triangulation Worksheet (GQTW) that can be found in Appendix K. Final analysis was conducted by application of the Decision Making Matrix (DMM). The DMM can be found in Appendix L.

Table 7.

Guiding Question One Subquestions

Subquestions	Description
1.1	To what extent did course participants acknowledge that the ATPD course's overview and introduction met high quality hybrid-learning standards?
1.2	To what degree did course participants acknowledge that the ATPD course's goals and objectives were clearly defined and measurable according to high quality hybrid learning standards?
1.3	To what extent did course participants acknowledge that high quality hybrid learning standards were reflected through meaningful learning and support within the ATPD course's instructional model?
1.4	To what extent did course participants acknowledge that course resources and materials were comprehensive and reflected high quality-hybrid learning standards?
1.5	To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology fostered learning and interactivity?

Subquestion 1.1 Data Results

Subquestion 1.1 analyzed participants' perceptions about the ATPD course's overview and introduction to determine high quality, hybrid-based learning standards. The percentage of total points available for HPDR category I, Overview and Introduction, was collected and presented along with the mean scores for ATES questions 1, 3, 6 and 9 in Table 8. These questions were selected because they measured respondents' perceptions about course technology, the course management system (CMS), Desire2Learn, and the course facilitator. Qualitative data were collected from the IGQ and ELMQ and triangulated with the quantitative instrument results.

CMS

The quantitative data collected from ATES question 1 resulted in a mean score of 4.3 based on a 5-point scale (1= strongly disagree, 5=strongly agree), indicating participants agreed that the CMS assisted participants build course content knowledge. ATES question 3 received a mean score of 4.50, based on a 5-point scale, indicating that teachers did not believe they were at a disadvantage in the ATPD course because of inexperience with the CMS. Furthermore, quantitative data from HPDR performance outcome 1.1 received 100% of the points available, indicating participants' believed the CMS was easy to use.

Qualitative data collected from the IGQ and ELMQ were mostly positive about the usability of the CMS. "I felt like the Desire2Learn program was very easy. It was sort of self-taught, but just simplistic enough that I felt comfortable." (P9) However, one individual suggested, "We needed time to play with and check out how to do certain things like the drop box or the discussion." (P6) This request for more review time reoccurs throughout question one data results.

Information Technology and Support

Quantitative data were also collected from the HPDR and ATES. Data from ATES question 6 received a mean score of 4.2, based on a 5-point scale, indicating participants agreed that informational technology and support were available during the ATPD course. Quantitative data collected from the HPDR performance outcomes 1.2, 1.3, and 1.6 received 100% of the points available, indicating a course syllabus,

informational technology and support were available during the overview and introduction of the ATPD course.

Qualitative data collected from the IGQ and ELMQ were predominately positive about the course syllabus and informational technology. “The syllabus was just right there. We could just click [on] a link and see what we were doing next time. The structure was there. We knew what was going to happen.” (P12) “What[ever] the instructor gave us to do, he had tutorials on the side. So if I didn’t know how to do something, I would go in the tutorials and sometimes I made hard copies of it.” (P3) These positive comments about ATPD course support are found throughout guiding question one data.

Table 8

Subquestion 1.1 ATES and HPDR Data

	HPDR Points			ATES			
Outcomes	Max. Avail.	Assigned	Percent	Questions	Min	Max	Mean
1.1	36	36	100%	1	1	5	4.33
1.2	36	36	100%	3	1	5	4.50
1.3	36	36	100%	6	1	5	4.2
1.4	24	24	100%	9	1	5	2.58
1.5	24	23	96%				
1.6	12	12	100%				
1.7	12	12	100%				
1.8	12	12	100%				

Note. (Max. Avail. = Maximum Available, Min. = Minimum) HPDR performance outcome scores were weighted using a 3pt scale (3pt = required, 2pt = important, need to include, 1pt = good to include but not required). ATES questions scores were rated using a Likert type 1-5 point scale (1 = strongly disagree, 5 = strongly agree).

Learning Activities

The quantitative data collected from HPDR performance outcome 1.5 received 96% of the points available, indicating ATPD course learning activities were appropriate for the course's mode of instruction. However, qualitative data collected from the IGQ and ELMQ, although somewhat positive, also included concerns pertaining to the discussion forum conducted during the online portion of the ATPD course. "Discussion groups were okay. We all talked about the fact that you didn't get all the feedback, but when you got all the feedback it was overwhelming." (P2) "Chunk the topics so that all of the information does not run together." (P10) These concerns became a prelude to many remarks made from study participants about the instructional activities conducted during the ATPD online learning modules.

Facilitator Time and Support

Quantitative data were collected from the HPDR and ATES. ATES question 9 received a mean score of 2.5, based on a 5-point scale. ATES question 9 indicated participants were neutral (neither agreed nor disagreed) that the hybrid-based learning environment of the ATPD course took away from the course facilitator's time and support. However, quantitative data collected from HPDR performance outcome 1.7 received 100% of the points available, indicating the facilitator's communication and support during the ATPD course overview and introduction reflected high quality hybrid-based learning standards.

Qualitative data collected from the IGQ and ELMQ reflected predominately positive remarks. "[The facilitator] was great, you could always email him, and if we

posted a question to him in the discussions, he monitored all the discussion and would get back. I know if I could call [the facilitator], and I could post a message on the board (I would) get an answer." (P12)

Netiquette

Quantitative data were collected from HPDR performance outcomes 1.4 and 1.8, received 100% of the points available, indicating course netiquette was part of the ATPD course. Qualitative data were collected from the IGQ and ELMQ. The few responses available about netiquette addressed concerns in reference to the online discussion activities. "People waited to post, "[this was] not good for people assigned to summarize." (P2) This may also be connected to inexperience with an asynchronous learning environment.

Subquestion 1.1 Data Analysis

Course participants assigned 99% of the points available for HPDR category I Overview and Introduction, and a mean score of 4.33 for ATES question 1, a mean score of 4.50 for ATES question 3, and a mean score of 4.2 for ATES question 6, based on a 5-point scale. Participants also contributed predominately positive responses through the IGQ and ELMQ pertaining to facilitator communication, the availability of the course syllabus and tutorials, and the usability of the CMS. However, responses also highlighted concerns about the need for more review time and that instructional activities conducted in the discussion forum during the ATPD online course learning modules were confusing.

After triangulating both qualitative and quantitative data results through the GQTW, data were applied to determine which DMM criteria were appropriate for subquestion 1.1. The final analysis indicated a moderate to strong level of acknowledgement that the ATPD course overview and introduction exemplified high quality, hybrid learning standards.

Subquestion 1.2 Data Results

Subquestion 1.2 analyzed participants' perceptions about the ATPD course's goals, objectives, and assessments and determined whether these attributes were clearly defined and measurable, according to high quality, hybrid-based learning characteristics. Quantitative data were collected from the HPDR category II Standards, category III Learning Objectives, and category IV, Assessment and Measurement are presented in Table 9. Qualitative data were collected from the ELMQ and IGQ and triangulated with the HPDR results.

Standards

Quantitative data were collected from HPDR performance outcomes for category II, Standards. All performance outcomes received 100% of the points available, indicating the ATPD course supported Maryland professional development, technology and content standards. There were no qualitative data pertaining to HPDR category II.

Learning Outcomes

Quantitative data were collected from HPDR performance outcomes for category III, Learning Outcomes. Performance outcomes 3.1 and 3.2 received 100%

of the points available, indicating course content was relevant and supported the course learning objectives (as identified in the ATPD course syllabus found in Appendix B). There were no qualitative data pertaining to category III.

Table 9

Subquestion 1.2 HPDR Data

	Points		
Outcomes	Maximum Available	Assigned	Percent
2.1	36	36	100%
2.2	36	36	100%
2.3	36	36	100%
3.1	36	36	100%
3.2	36	36	100%
3.3	24	23	96%
3.4	24	23	96%
3.5	24	21	87%
4.1	36	36	100%
4.2	36	36	100%
4.3	24	23	96%
4.4	24	24	100%
4.5	24	24	100%
4.6	12	12	100%

Note. HPDR performance outcome scores were weighted using a 3pt scale (3pt = required, 2pt = important, need to include, 1pt = good to include but not required.

Clarity of Course Objectives

HPDR performance outcomes 3.3 and 3.4 received 96% points available, based on a 5-point scale indicating ATPD's course learning objectives were clear and review time was available, for tasks or activities. Although qualitative data collected

from the IGQ and ELMQ included a few positive comments from participants about instruction, several indicated concerns about the clarity of directions for learning activities and the allocated review time of course content. "I would have liked to have had more review time, just more time to decipher it, learn it, just more time to go over the different kinds of assistive technology." (P8) "I would like to be walked through the Intellitech [software] because the steps weren't clear for the program." (P9)

Redundancy of Activities

HPDR performance outcome 3.5 received 87% of the points available, indicating there was no redundancy in course instructional activities. However, qualitative data collected from the IGQ and ELMQ suggested there were some concerns about the redundancy of course instructional activities in context with the online discussion activities of the ATPD course. "Two or three people talking about the same thing is a little monotonous." (P12) "[The facilitator] kept telling us that our discussions needed to be a little meatier and lengthier and so on, but everybody got to a point where, what else could you say." (P9)

Consistency in Assessments

Quantitative data were collected from HPDR performance outcomes for category IV, Assessment and Measurement. Performance outcomes 4.1 and 4.2 received 100% of the points available, indicating the ATPD course included a fair grading policy and reflected consistency in assessments. There were no qualitative data pertaining to these performance outcomes.

Assessment Feedback

HPDR performance outcome 4.3 received 96% of the points available, indicating there was assessment feedback given to them after an assessment was conducted. Qualitative data collected from the IGQ and ELMQ indicated mostly concerns about the mid-term assessment tool that was posted online and required individuals to repeatedly answer all questions until they achieved a score of 100%. "It would be better if you only had to fix those questions that you got right instead of going back and retaking the whole test." (P11) This assessment was not part of the study but rather an assessment created by the facilitator.

Appropriateness of Assessments

HPDR performance outcomes 4.4 and 4.5 received 100% of the points available, indicating the assessment mode and submission methods were appropriate. There were no qualitative data pertaining to these performance outcomes.

Evaluation of Course Content

HPDR performance outcome 4.6 received 100% of the points available, indicating participants were given the opportunity to evaluate course content. There were no qualitative data pertaining to this performance outcome.

Subquestion 1.2 Data Analysis

HPDR category II, Standards, received 99% of the points available; HPDR category III, Learning Objectives, received 96% of the points available; and HPDR category IV, Assessment and Measurement, received 99% of the points available. Although these quantitative results overwhelmingly support a strong indication that

the ATPD standards, objectives, and assessments exemplify high quality hybrid-learning, qualitative data suggested a number of concerns. These concerns expressed by participants pertained to the redundancy of tasks conducted during the online segment of the ATPD course; participants' confusion with directions given during instructional activities, such as an assessment task; and the need for more course review time.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate for subquestion 1.2 data results. The final analysis indicated a strong to moderate level of acknowledgement that the ATPD course standards, learning objectives, and assessment instruments exemplified high quality hybrid learning standards.

Subquestion 1.3 Data Results

Subquestion 1.3 analyzed study participants' perceptions about the meaningful learning and support provided through the ATPD course to determine high quality, hybrid-based learning standards. The percentage of total points available for HPDR category V, Learner Interaction and Support, was collected and presented with the mean scores for ATES questions 1 and 5 in Table 10. ATES question 1 measured participants' perceptions about how the CMS, Desire2Learn, helped participants learn course content knowledge. Additionally, ATES question 5 measured participants' perceptions about the effectiveness of ATPD course technology controlling the pace of participants' learning.

Table 10

Subquestion 1.3 ATES and HPDR Data

	HPDR Points			ATES			
Outcomes	Max. Avail.	Assigned	Percent	Questions	Min	Max	Mean
5.1	36	36	100%	1	1	5	4.33
5.2	36	36	100%	5	1	5	3.75
5.3	36	36	100%				
5.4	24	23	96%				
5.5	12	12	100%				

Note. (Max. Avail. = Maximum Available, Min. = Minimum) HPDR performance outcome scores were weighted using a 3-pt scale (3pt = required, 2pt = important, need to include, 1pt = good to include but not required). ATES questions scores were rated based on a Likert type 1-5 point scale (1= strongly disagree, 5 = strongly agree).

CMS and Learning

Quantitative data for subquestion 1.3 were collected from the ATES and HPDR. ATES question 5 received a mean score of 3.75, based on a 5 point scale, indicating participants somewhat agreed the CMS helped control the pace of learning. The HPDR performance outcome 5.1 received 100% of the points available, suggesting the hybridity of the ATPD course provided a variety of activities and interaction.

Qualitative data collected from the IGQ and ELMQ were predominately positive. “I was able to get a lot of information from my group because they had a lot more teaching and learning experience.” (P12) “I like the design; I like a human being to ask questions and it was better than both an online course and an in-class I think hybrid is the way to go, I liked the support there.” (P11) According to these

responses, participants' suggested the support they received during the course was not limited to the facilitator but was also available through peers and the CMS.

Facilitator Standards

Quantitative data were collected for the HPDR performance outcome 5.2, that received 100% of the points available, indicating clear course standards were set for the instructor. Qualitative data were collected by the IGQ and the ELMQ and were approximately 50% positive. "If anything went wrong, he [the facilitator] was very quick to get back on the email to us." (P6) "[The facilitator] was always available when we needed him and he was willing to go over things and spend more time on things." (P11)

Although participants perceived the facilitator as very supportive, many concerns were expressed about the facilitator's management of the online learning modules of the ATPD course. "People waited until Sunday night to post stuff and frankly [the facilitator] did threaten at one point, but he just said, please do it." (P2) "At times it [instruction through the online portion of the ATPD course] was a little hard to follow and sometimes I didn't really know what was expected, so I had to collaborate with other people to get a definitive answer on what was going on." (P4) Responses suggested the facilitator was extremely helpful but participants needed more verbal or written directions to complete instructional activities.

Hybrid-Design

Quantitative data were collected for the HPDR performance outcome 5.3 which received 96% of the points available, indicating the hybrid design of the ATPD

course provided a clearly articulated path for student- teacher interaction. ATES question 1 received a mean score of 4.33, based on a 5-point scale indicating that the CMS helped teachers learn more about assistive technology.

Qualitative data were collected from the IGQ and the ELMQ and were predominately positive. However, there were concerns voiced by participants pertaining to the frustrations they experienced moving from the online to the traditional classroom setting and wasted class time. "I sometimes have to wait for some members of the group to catch up." (P10) "When getting from the 1st task to 2nd, I really feel there was a better way to use the time." (P6) These comments were indicative of qualitative responses that identified concerns about facilitator course management.

Additional Resources and Materials

Quantitative data collected for the HPDR performance outcomes 5.4 and 5.5, which received 100% of the points available, indicating there were additional academic information and tutorials. Qualitative data collected from the ELMQ and IGQ were overwhelming positive. "We had a multiple of resources available for us to explore and to learn." (P9) "'I used the tutorials at the beginning." (P5) "There were plenty of resources." (P7) These positive responses pertaining to the availability of course resources appear in other subquestions.

Subquestion 1.3 Data Analysis

Course participants assigned 99% of the points available for the HPDR category V, Learner Interaction and Support, a mean score of 4.33 for ATES question

1, and a mean score of 3.75 for ATES question 5, based on a 5-point scale. Qualitative data collected from the ELMQ and IGQ indicated positive responses pertaining to support from the ATPD course facilitator, the CMS and other peers. Additionally, participants commented favorably in reference to the availability of additional course instructional materials and how the hybridity of the course assisted them in learning course content knowledge. However, there were concerns expressed pertaining to the facilitator's management with the online instructional activities.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate for subquestion 1.3 data results. The final analysis indicated a moderate to strong level of acknowledgement that the ATPD course's learner interaction and support exemplified high quality hybrid learning standards.

Subquestion 1.4 Data Results

Subquestion 1.4 analyzed the ATPD course's resources and materials to determine if they supported high quality hybrid-based learning standards. The percentage of total points available for HPDR Category VI, Resources and Materials, was the only HPDR category that all performance outcomes received 100% of the maximum number of points available. Data results for Category VI can be found in Table 11.

Quality

Quantitative data collected from HPDR performance outcome 6.1 received 100% of the points available, indicating there was depth in course content materials.

Qualitative data were collected from the ELMQ and IGQ and were predominately positive. Comments reflected the overall satisfaction course participants expressed throughout guiding question one about the quality of the ATPD course materials and resources. “He [the facilitator] would send you someplace and it would have links. I would start looking at the links and that was kind of interesting. It [course activities] allowed you to find things you didn’t know existed.” (P2)

Table 11

Subquestion 1.4 HPDR Data

	HPDR Points		
Outcomes	Maximum Available	Assigned	Percent
6.1	36	36	100%
6.2	36	36	100%
6.3	36	36	100%

Note. HPDR performance outcome scores were weighted using a 3-pt scale (3pt = required, 2pt = important, need to include, 1pt = good to include but not required)

Accessibility and Usability

Quantitative data collected from the HPDR performance outcome 6.2 received 100% of the points available, indicating course materials were accessible and easy to use. There were no qualitative data pertinent to accessibility and usability of ATPD course resources and materials.

Appropriate Format

Quantitative data collected from HPDR performance outcome 6.3 received 100% of the points available, indicating all instructional materials were presented in a

format appropriate for the mode of content delivery. Qualitative data collected from the IGQ and the ELMQ were mostly positive. "It is where you have to access information on the Internet. It doesn't make sense to do it another way." (P2) "I just enjoyed it much more than textbooks. I felt like it wasn't as restricted and was probably just a sign of the times but it was a little more motivating and engaging than a typical textbook kind of lecture course." (P9) However, participants also expressed the need for more review time. "I would like to have more time reviewing and maybe some kind of organization or a hard copy or handout of the different kinds of assistive technology something that shows all the different stuff that is out there." (P8)

Subquestion 1.4 Data Analysis

Course participants assigned100% of the points available for the HPDR category VI, Resources and Materials. Qualitative data collected from the ELMQ and IGQ reflected predominately positive responses in the quality of course materials and resources. As has occurred in other guiding question one subquestions, the need for more review time was again expressed by participants.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate for subquestion 1.4 data results. The final analysis indicated a strong level of acknowledgement that the ATPD course's instructional resources and materials exemplified high quality hybrid learning standards.

Subquestion 1.5 Data Results

Subquestion 1.5 analyzed participants' perceptions about the ATPD course's technology and instructional design and if the ATPD course was Section 508 compliant, the section of the Assistive Technology Act of 1998, that requires all web sites to be accessible for persons with disabilities. The mean scores for each performance outcome located in the HPDR category VII, Course Technology and Instruction Design, and VIII, Section 508 Compliance, were collected and presented with the mean scores for ATES questions 8 and 10 in Table 12. ATES question 8, with a mean score of 4.0, based on a 5-point scale addressed participants' perceptions about their experience during the ATPD course and how participants were able to apply materials to real-life situations because of the course technology. ATES question 10, with a mean score of 4.3, based on a 5-point scale addressed participants' perceptions about the hybrid approach taken in this course and how hybridity helped them juggle other responsibilities (work and home). Qualitative data were collected from the IGQ and the ELMQ.

Technology Enhancement of Active Learning

Quantitative data were collected from the HPDR and ATES. ATES question 8 received a mean score of 4.0, based on a 5-point scale, indicating participants agreed they were better able to develop assistive technology skills and apply them to real-life situations because of the course technology. Quantitative data from HPDR performance outcome 7.1 received 100% of the points available, indicating the tools and media of the ATPD course enhanced interactivity and active learning.

Qualitative data collected from the IGQ and ELMQ were predominately positive. "If anything, I learned how to do a lot of things that I had just not done, because I had to do a lot of like attachments and sending emails. I thought the Desire2Learn platform was pretty good. I think it would be much easier to understand if I took another class." (P8) "It [course technology] made me try to become more fluent in using the computer and the different features that it has." (P1)

Availability of Course Technology

Quantitative data collected from HPDR performance outcome 7.2 received 97% of the points available. Performance outcome 7.3 received 97% of the points available, and performance outcome 7.8 received 92% of the points available. These three performance outcomes addressed technology related issues such as the availability of course technology, operational links, and the use of horizontal scrolling. The three outcomes did not receive as strong a point score as other technology related performance outcomes (7.1, 7.4, 7.5, to 7.7). Qualitative data collected from the IGQ and the ELMQ were also predominately negative about the technology described above. "The only thing with my computer, the video, I couldn't get the video part to come up; that's because I have dial-up, that was the only thing that was frustrating me was because it would show a little bit then it would somehow stop." (P8) "Some links would be hard to maneuver because the scroll bars would only let you go so far and it's like trying to read a page with only half a window." (P6)

Table 12

Subquestion 1.5 ATES and HPDR Data

	HPDR Points				ATES		
Outcomes	Max. Avail.	Assigned	Percent	Questions	Min.	Max.	Mean
7.1	36	36	100%	8	1	5	4.00
7.2	36	35	97%	10	1	5	4.33
7.3	36	35	97%				
7.4	24	24	100%				
7.5	24	24	100%				
7.6	24	24	100%				
7.7	12	12	100%				
7.8	12	11	92%				
8.1	36	36	100%				
8.2	24	23	96%				
8.3	12	12	100%				

Note. (Max. Avail. = Maximum Available, Min. = Minimum) HPDR performance outcome scores were rated using 3pts scale (3pts = required, 2pts = important, 1pt good to include but not required). ATES questions scores were rated using 5 point scale (1= strongly disagree, 5 = strongly agree).

Technology Compatibility with Hybrid-Learning

ATES question 10, with a mean score of 4.3, based on a 5-point scale, indicated participants agreed that they were better able to juggle course work with other responsibilities because of the hybrid approach. Quantitative data collected from HPDR performance outcome 7.4 received a score of 100%, indicating participants perceived the course media were compatible with hybrid-learning.

Qualitative data collected from the IGQ were overwhelmingly positive. “I thought the hybrid design was a good way to take class because it allowed us

individual learning time as well as group reflection [online] and presentation time [in the traditional classroom]." (P6) "I liked the idea of having the hybrid course because I only needed to be here and away from my family one night a week, and the other time I could be at home or I could work online at my leisure." (P9) These positive reflections were a prelude to other comments participants expressed about the use of technology and how it assisted making the hybrid learning environment an acceptable learning modality.

Design of Course Learning Modules

Quantitative results collected for HPDR performance outcome 7.5 received 100% of the points available, indicating participants strongly believed there was consistency in design of all ATPD course learning modules offered through the CMS. HPDR performance outcome 7.6 also received 100% of the points available, indicating participants felt the CMS online course modules followed the design convention of other ATPD course learning modules. Additionally, performance outcome 7.7 received 100% of the points available, indicating participants strongly believed that CMS course modules limited the number of fonts and colors. There were no qualitative data pertaining to these performance outcomes.

Section 508 Compliance

Quantitative data were collected for HPDR category VIII, Section 508 Compliance. Quantitative data collected from HPDR performance outcome 8.1 received 100% of the points available, indicating there was evidence of effort to recognize 508 requirements. Quantitative data collected from HPDR performance

outcome 8.2 received 96 % of the points available, indicating ATPD online learning modules provided alternatives to auditory and visual content. Additionally, performance outcome 8.3 received 100% of the points available, indicating that the ATPD online learning modules video and audio file links were operational.

Subquestion 1.5 Data Analysis

Course participants assigned 98% of points available for HPDR category VII, Course Technology, and 99% of the points available for HPDR category VIII, Section 508 Compliance. ATES question 8 received a mean score of 4.0, based on a 5-point scale indicating participants agreed course technology aided them learn course content knowledge. Furthermore, ATES question 10 received a mean of 4.33, indicating participants agreed the hybrid approached also allowed them to successfully manage the course with other professional and personal responsibilities. The IGQ and ELMQ collected predominately positive responses pertaining to the course technology, the hybrid format of the course, and the CMS. However, participant responses also highlighted concerns pertaining to the availability of technology and the few technical problems that occurred while operating the course technology.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which criteria were appropriate for subquestion 1.5 data results. The final analysis indicated a moderate to strong level of acknowledgement that the ATPD course technology exemplified high quality, hybrid learning standards.

Summary

Guiding Question One included five succinct subquestions. Once data were collected from each subquestion, triangulated, and applied to DMM criteria to assist in the final analysis, the researcher was able to determine if the ATPD course exemplified the characteristics of high-quality hybrid-based learning. All HPDR quantitative data indicated a strong level of acknowledgement by participants that the ATPD course embraced high quality, hybrid-based learning. This was corroborated by the measurement of ATES questions 1 to 6, 8, and 10 that received mean scores indicating the course technology; learning activities; and support through the facilitator, CMS, and peers were all effective. Participants also agreed they experienced a building of course content knowledge. Only ATES question 9 received a neutral score, which suggested participants neither agreed nor disagreed that the use of the CMS, took away from time with the facilitator and peers.

Qualitative data results collected from the IGQ and ELMQ supported quantitative findings of a strong level of acknowledgement for subquestion 1.4 (academic resources). Qualitative data collected for the other subquestions (1.1 to 1.3, 1.5) did not suggest a strong level of acknowledgement, but rather a moderate level based on concerns participants expressed during individual interview sessions or through ELMQ reflection questions. Themes defined by participants that may have caused them concern and confusion were the need for more review time, the confusion with online instructional activities, and the management of the online portion of the course. Because of these concerns guiding question data analysis

concluded that participants perceived a moderate to strong level of acknowledgement that the ATPD course exemplified high quality hybrid learning characteristics.

Guiding Question Two

Will K-12 teachers develop an increase in understandings of course content after completing a hybrid professional development course?

Guiding question two analyzed data to determine if participants in the ATPD course demonstrated a building of course content knowledge. Subquestions were compiled to provide a more comprehensive study of guiding question two's data and are found in Table 13. Quantitative data critical to answering guiding question two and its subquestions were collected from the ATCPT and entered into the statistical analysis package SPSS. Analyses of ATCPT data entered into the SPSS software were conducted through a One-Sample T-Test. Additionally, the percent of increase between pre-test and post-test mean scores for each ATPD course participant group was collected through the ATCPT.

Quantitative data were also collected from ATES question 1 to 5, 9, 10 and 13. Qualitative data collected from the IGQ and the ELMQ were triangulated with quantitative results through the GQTW and applied to the DMM to assist in the final analysis of guiding question two.

Subquestion 2.1 Data Results

Subquestion 2.1 analyzed quantitative data collected from the ATCPT pertaining to the percent of increase in the building of course content knowledge. The following participant groups were examined: all ATPD course participants,

participants who had taught more than 10 years, participants who had taught less than 10 years, special education teachers, and regular curriculum teachers.

Table 13

Guiding Question Two Subquestions

Subquestions	Description
2.1	Did participants indicate an increase in the building of course content knowledge?
2.2	Did participants indicate a significant increase in the building of course content knowledge (p>.05)?
2.3	Did participants indicate that course technology assisted in building of course content knowledge?
2.4	Did participants indicate that the course's hybrid-based learning environment assisted them in building course content knowledge?
2.5	Did participants indicate that the course's facilitator assisted in their building of course content knowledge?

The group of all course participants received a mean score of 54.4% on the ATCPT pre-test and a mean score of 76.6% on the ATCPT post-test, indicating a 40.4% increase in the building of course content knowledge. The group of individuals who have less than 10 years teaching experience received a mean score of 53% on the ATCPT pre-test and a mean score of 75% on the ATCPT post-test, indicating a 41.5% increase in the building of ATPD course content knowledge. The group of individuals who have more than 10 years of teaching experience received a mean score of 56.4% on the ATCPT pre-test and a mean score of 75.7% on the ATCPT post-test, indicating a 34% increase in the building of ATPD course content knowledge. The group having more than 10 years of teaching showed a lower

percentage of increase (34%) than the less than 10 years of teaching experience group (41.5%).

Participants who taught special education received a mean score of 61.2% on the ATCPT pre-test, and a mean score of 83.7% on the ATCPT post-test, indicating a 36.7% increase in the building of ATPD course content knowledge. Participants who taught regular curriculum courses received a mean score of 52.5% on the ATCPT pre-test and a mean score of 73.1% on the ATCPT post-test, indicating a 39.2% increase in the building of ATPD course content knowledge. Both groups' increase in the building of ATPD course content knowledge were comparatively similar. All participant group data can be found in Table 15.

Table 14

Participant Groups' ATCPT Results

		ATCPT		
Group	n	Pre	Post	Increase
All	12*	54.4%	76.6 %	40.4%
< 10 years	5	53.0%	75.0%	41.5%
> 10 years	7	56.4%	75.7%	34%
Special Ed.	4	61.2%	83.7%	36.7%
Regular	8	52.5%	73.1%	39.2%

Note: *indicates the entire ATPD course population.

Additionally, ATES question 13 received a mean score of 4.3, based on a 5-point scale indicating that participants agreed they felt more confident about using Assistive Technology to help students with diverse learning styles.

Subquestion 2.1 Data Analysis

Because there were no qualitative data collected for subquestion 2.1, the DMM was applied to each participant group's data to determine which DMM indicator was appropriate. Based on the percent of increase for all course participants (40.4%), the DMM criteria indicated a moderate increase in building of course content knowledge. This was also true for teachers who taught less than 10 years (41.5%). However, teachers who taught more than 10 years, the percentage of increase (34%), when applied to the DMM, indicated some increase in the building of course content knowledge.

The DMM criteria indicated a moderate increase in building of course content knowledge for regular educators (39.2%) and for special educators (36.7%). The final analysis of data collected for subquestion 2.1 indicated that participant groups reflected some to moderate increase in the building of course content knowledge.

Subquestion 2.2 Data Results

Subquestion 2.2 was analyzed using quantitative data collected and entered into the statistical analysis package, SPSS. Data were examined to determine if all participants and participant groups of more than 10 years teaching, less than 10 years teaching, special educators and regular educators indicated a significant increase in the building of course content knowledge ($p < 0.05$). Using a One-Sample T-Test, data results for all participant groups are found in Table 15.

Table 15

ATPD Course Participant Data

Group	t	df	Sig. (2-tailed)
All Participants	4.977	11	.00*
Less than 10 yrs	5.41	4	.006 *
More than 10 yrs	2.95	6	.026 *
Special Ed.	2.714	3	.07 NS
Regular Ed.	3.893	7	.006 *

Note. * = Significant at 0.05, NS = Not Significant

ATPD course participants indicated a significant increase in the building of course content knowledge. In addition the participant groups of less than 10 years of teaching, the participant group of more than10 years of teaching, and regular curriculum educators, indicated significant levels of increase in the building of course content knowledge. However, the participant group of special education teachers, appeared to demonstrate no significant level of increase in the building of course content knowledge ($p<.05$).

Subquestion 2.2 Data Analysis

Because there were no qualitative data collected for subquestion 2.2, data were applied to the DMM to determine which indicator was appropriate. Based on quantitative data collected from the ATCPT for all course participants, the DMM criteria appears to indicate there was significant levels of increase ($p<.05$). This was also true for the ATPD participant groups of regular curriculum educators, those individuals who had taught more than 10 years and those individuals who had taught

less than 10 years. However, for participants who were special educators the DMM criteria appears to indicate there was no significant level of increase ($p<.05$).

Subquestion 2.3 Data Results

Subquestion 2.3 analyzed participants' perceptions about the ATPD course technology to determine how these resources assisted in the building of course content knowledge. The data from ATES questions 1 to 5 were collected and summarized in Table 16.

Quantitative data collected from ATES questions 1 and 2 indicated that participants agreed the CMS (mean score of 4.3), and course technology (mean score of 3.6) somewhat helped them learn more about the ATPD course content knowledge. Moreover, ATES question 5, with a mean score of 3.7, based on a 5-point scale (1 = strongly disagree, 5 = strongly agree) demonstrated teachers somewhat agreed they were able to control the pace of learning more effectively because of the course technology. Furthermore, ATES question 3, with a mean score of 4.5 and ATES question 4, with a mean score of 4.3, based on a 5-point scale indicated that teachers did not agree they were at a disadvantage learning in the ATPD course because of a lack of knowledge pertaining to the CMS or other course technology software and hardware.

Qualitative data were collected from the IGQ also indicated that participants' modest technology skills were not seen as a disadvantage in the ATPD course. "If anything I learned how to do, a lot of things that I had just not done, because I had to

do a lot of like attachments and sending emails." (P8) "I didn't know you could attach a microphone to your computer and the computer types what it heard." (P3)

Table 16

ATES Data Results

Questions	Points Minimum	Maximum.	Mean
1	1	5	4.3
2	1	5	3.6
3	1	5	4.5
4	1	5	4.3
5	1	5	3.7

Note. ATES questions scores were rated using 5 point scale (1 = strongly disagree, 5 = strongly agree).

Other qualitative responses pertained specifically to the assistive technology (AT) software and hardware. These responses were also predominately positive. "I found that the Readplease2003 was a useful tool." (P3) "I loved Dragon Naturally Speaking and would like more exploration time with it." (P12) "[I enjoyed] practicing with the various assistive technology equipment. I may not use the high end of assistive technology with my population, [but] it is fascinating to know what resources are available." (P9) The assistive technology programs that received the most positive comments were Inspiration, Clicker4, Writing with Symbols 2000, and Dragon Naturally Speaking. However, the few responses pertaining to course technology collected through the ELMQ were somewhat negative. "I had a very difficult time using the e-reader. I think I would need a tutorial on software." (P6)

"[I am still confused about] how to save PowerPoint. We need more info at beginning of class about tech needs." (P1)

Subquestion 2.3 Data Analysis

Quantitative data collected from ATES question 1 (mean score of 4.3) and question 2 (mean score of 3.6) indicated participants agreed the CMS and the course technology assisted individuals to learn more about assistive technology. ATES question 3, with a mean score of 4.50, and question 4, with a mean score of 4.3, based on a 5-point scale indicated participants agreed they were not at a disadvantage in the ATPD course because they were not as technology proficient with course technology as other peers. Furthermore, ATES question 6, with a mean score of 4.1, based on a 5-point scale indicated participants agreed the course technology was appropriate for performing ATPD course instructional assignments.

Qualitative data collected from the IGQ were mostly positive about how course technology assisted in the building of course content knowledge. The CMS and course software such as Dragon Speaking Naturally and Clicker4 were identified as assisting in the building of course content knowledge. Although responses were few, qualitative data collected from the ELMQ indicated some concerns pertaining to specific course technology. Course technology that participants expressed concerns about were the software programs PowerPoint and e-reader. Furthermore, qualitative responses suggested teachers needed more practice time with the technology.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate

for subquestion 2.3 data results. Since respondents expressed predominately positive remarks about ATPD course technology, the DMM indicator that reflects this criteria is that of a strong indication by participants that course technology assisted in the building of course content knowledge.

Subquestion 2.4 Data Results

Subquestion 2.4 analyzed participants' perceptions pertaining to the hybridity of the ATPD course and how this instructional model assisted in the building of course content knowledge. Qualitative data were collected from the IGQ and ELMQ. Quantitative data were collected from ATES question 10 that ascertained perceptions pertaining to the hybrid-based framework.

Quantitative data collected from ATES question 10, with a mean score of 4.3, based on a 5-point scale indicated participants agreed that the hybrid framework of the ATPD course assisted individuals to juggle course work with other personal and professional duties. Qualitative data collected from the IGQ and the ELMQ also included positive responses pertaining to hybrid-based learning and how the framework assisted them build course content knowledge. "Online group discussion helps with subject content because some people are more familiar with certain assistive technology tools and have more experience than others. These people were able to make some good recommendations, and then we practiced some of the assistive technology keeping the suggestions in mind." (P9) "I thought it [hybrid-based instruction] was pretty good. It was very effective. I liked being able to work

online, pulling-up those articles, and reading them at my own pace instead of someone lecturing." (P8).

Participants' responses were also predominately positive about how course content offered through a hybrid approach assisted in applying learning to individual situations. "We were also able to adapt that particular learning to what we are doing so it was more effective."(9) "I liked that it [ATPD course] wasn't just online. We did have face to face so you were not totally just left out there on your own. Since it was a hybrid I was able to have motivation with the face to face and then apply the content on my own." (P12)

Subquestion 2.4 Data Analysis

Qualitative data collected from the IGQ and ELMQ were predominately positive about how the hybrid instructional framework assisted participants to build course content knowledge. Responses indicated the attributes of hybrid-based learning that assisted in the building of course content knowledge were the support, motivation, and hands-on approach that were available during classroom learning modules. The hybridity framework also assisted with the online group reflection that occurred during the online learning modules conducted through the CMS.

Quantitative data were collected from the ATES question 10, with a mean score of 4.3, based on a 5-point scale indicated participants agreed the hybridity of the ATPD course allowed them to better handle professional and personal responsibilities. After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were

appropriate for subquestion 2.4 data results. Since participants expressed predominately positive remarks about the hybrid framework of the ATPD course, the DMM indicator that reflects this criteria is that of a strong indication by participants that the hybrid-instructional framework assisted in the building of course content knowledge.

Subquestion 2.5 Data Results

Subquestion 2.5 analyzed participants' responses about the ATPD course facilitator assisting in the building of course content knowledge. Qualitative data were collected from the IGQ and ELMQ. Responses were categorized according to positive attributes and concerns. Quantitative data were collected from ATES question 9.

Qualitative data collected from the IGQ and ELMQ included predominately positive participant responses pertaining to facilitator support. "He [the facilitator] constantly kept in contact with us. He read comments that we have and then he would email you if you have a question about your case study or something that you had written, so I knew all week long he was checking the computer because he emailed me like on Wednesday." (P3) "My instructor has been wonderful." (P5)

However, participants also expressed concerns pertaining to the facilitator's management of the ATPD course, specifically providing more review and practice time. "[The facilitator needs to] take the time [for participants] to be shown how to use and do various things." (P5) "We need more time with each program to figure out how it works." (P11) Another area of concern expressed by participants through

the ELMQ was the understanding of the Student, Environment, Task, and Tools (SETT) process. "The instructions on how to fill out the SETT process and technology could have been completed before class, not during the course." (P11) "I am not too sure where to post the SETT forms." (P7) Two-thirds of the comments about the SETT process requested additional assistance or indicated participants were confused about the process.

Additionally, participants expressed confusion with online instructional activities. "Discussion expectations are very confusing to me." (P6) Quantitative data from ATES question 9, with a mean of 2.6, based on a 5-point scale also indicated participants neither agreed nor disagreed that the hybrid-based course made them feel less connected with the instructor and with other students in the course.

Subquestion 2.5 Data Analysis

Qualitative data collected from the IGQ and ELMQ were somewhat positive pertaining to the course facilitator's assistance in building course content knowledge. Although responses were overwhelmingly positive pertaining to facilitator's support, individuals also expressed concerns about the need for more practice time and management of some of the instructional activities, especially those conducted during the online learning modules. Quantitative data collected from the ATES question 9, with a mean score of 2.6, based on a 5-point scale indicated participants neither agreed nor disagreed that the hybrid-based ATPD course made them feel less connected to the instructor.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate for subquestion 2.5 data results. Since participants expressed both positive remarks and concerns about the faciliator's assistance, the DMM indicator that reflects this criteria is that of a moderate indication by participants that the facilitator assisted in the building of course content knowledge.

Summary

Guiding question two included five succinct sub-areas of inquiry. A thorough analysis of data helped the researcher determine that the ATPD course assisted in the building of course content knowledge. The conclusion is based upon the application of DMM indicators during the final analysis of triangulated data for each subquestion. Quantitative data applied to DMM criteria suggested some to moderate indication by participants that the ATPD course assisted in the building of course content knowledge. This was corroborated by the percent of increase in ATCPT pre-test post-test mean scores for all participant groups. Additionally, the overall study population and those participants who had more than 10 years of teaching experience, less than 10 years of teaching experience, and were regular curriculum educators all indicated a significant level of increase in course content knowledge ($p<.05$). However, teachers of special education did not reflect a significant level of increase in course content knowledge ($p<.05$).

Quantitative data collected from ATES questions 1 to 6, 8, 9 and 10 also indicated that participants agreed that course technology and the CMS assisted them

in building course content knowledge. Additionally, participants agreed that the hybrid-based instructional framework of the ATPD course assisted them in juggling course work with other responsibilities. However, participants neither agreed nor disagreed that the hybrid-course made participants feel less connected with the instructor.

Qualitative data collected from the IGQ and ELMQ indicated that participant responses were predominately positive pertaining to the hybrid instructional framework, course technology, and CMS assistance with the building of course content knowledge. Although participants were very positive about the support provided by the course facilitator, respondents did express some concerns pertaining to confusion with directions given by the facilitator in reference to online learning activities and course management. Individuals also expressed the need for more review or practice time with instruction.

After triangulating both qualitative and quantitative data results through the GQTW, each subquestion's data results were applied to DMM criteria. The final analysis indicated a moderate level of increase in the understanding and building of ATPD course content knowledge.

Guiding Question Three

How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional practice?

The importance of the transference of course content knowledge into a teacher's classroom practices is relevant to this study about the effectiveness of

hybrid-based professional development. Qualitative data results collected from the IGQ and the ELMQ were divided into subquestions. Subquestions were compiled to provide a more comprehensive study of guiding question three's data and are found in Table 17.

Table 17

Guiding Question Three Subquestions

Subquestions	Description
3.1	Was there any evidence that participants had transferred course content knowledge into their instructional practice?
3.2	Was there evidence that participants transferred course information to other teaching professionals?

Subquestion 3.1 Data Results

Subquestion 3.1 analyzed participants' perceptions about the transference of course content knowledge into classroom instructional practice. Qualitative data collected through the ELMQ and IGO indicated numerous examples of transference of ATPD course content knowledge into classroom teaching practices. Qualitative data were divided into two groups. The first group of responses expressed how individuals would like to transfer course content knowledge into classroom instruction. "I could easily use Writing with Symbols 2000 with several students. Sentence strips/picture symbols could be developed to help children communicate with others." (P1)

The other group of qualitative data identified anecdotal evidence about how teachers indicated that they transferred course content knowledge into classroom

instructional practices. "We used the text reader and we used work prediction software and he [the student] was able to produce quite a bit more …He certainly demonstrated to me that he understood the content when he read." (P3)

Qualitative data collected through the ELMQ included responses pertaining to how teachers indicated that they utilized course content knowledge within classroom instructional practices. Examples of how teachers indicated that they planned to transfer course content knowledge into classroom practices overwhelmingly pertained to assistive technology (AT) software and hardware. "I would probably use the Writing with Symbols program. Many first graders have pictures to help them read especially directions." (P8) "I thought the Clicker4 software could be a great help to my class, especially in a vocabulary situation." (P4)

Although participant responses about the teaching of one AT process appeared to generate many concerns, individuals did recognize the Student Environment Task and Tools (SETT) program as a valuable classroom practice. "[I would] use the SETT questions when thinking about referring students for AT." (P8) "[I would] use the SETT form to help organize student concerns for IEP meetings." (P3)

Qualitative data collected through the IGQ indicated anecdotal evidence about how individuals indicated that they utilized course content knowledge. The AT software that were included in many participants responses were Clicker4, Writing with Symbols 2000, Dragon Naturally Speaking and Inspirations. "Probably what is most effective for me was using Writing Symbols 2000 and making different work sheets that might be applicable for each individual child that I work with." (P1)

"I already showed my classes the Inspiration software today. They [the students] were so excited [the students] jumped quickly onto the computers. "They [the students] used Inspirations for their research papers." (P10)

Qualitative data collected from the IGQ also included comments students had made to teachers about the utilization of AT software within the classroom. "They [the students] thought it [AT software] was just games for the first grade. That is good - they shouldn't know that this is instructional because if it's instructional it's too much work and they are not interested." (P12) "He [student with a disability] was very pleased and he was able to do it very quickly. That was really what impressed me and that was the seventh grader." (P2)

Qualitative data collected during the actual interview sessions with ATPD course participants also produced numerous physical artifacts that exemplified the transference of course content knowledge into classroom instructional practices. These artifacts that were generated by the teacher or by a student can be found in Appendix M. Artifact 1 is an example of an Inspiration web completed by a 7th grade student. Artifact 2 is a lesson plan submitted by a course participant that included AT.

Qualitative data collected through the IGQ indicated only one concern that was expressed by most of the course participants. This concern was the scheduling of the actual ATPD course. Participants suggested that the ATPD course be offered during the first part of a school year in order to allow teachers the time they needed to generate new lessons or request installation of AT software into classroom computers.

I just wasn't able to utilize it [course knowledge] as I would have, as if this was a fall offered course." (P9) "I wish I had taken it [the course] in the fall, and then I could have used it all year." (P3)

ATES question 14 with a mean score of 4.42, based on a 5-point scale (1 = strong disagree, 5 = strongly agree), indicated that participants agreed the ATPD course helped them adapt teaching strategies and activities in order to effectively reach the diverse learning styles of classroom students. ATES question 13 with a mean score of 4.3, based on a 5-point scale also indicated participants agreed they felt more confident using assistive technology with students.

Subquestion 3.1 Data Analysis

Numerous participant responses were collected from the ELMQ pertaining to the future utilization of AT software, hardware and processes into classroom instruction. Responses were also collected from the IGQ pertaining to self-reported implementation of ATPD course knowledge. Participants articulated anecdotes and identified many physical artifacts that exemplified individuals' transference of course content knowledge into classroom practices. Quantitative data collected from ATES questi5-five point scale, indicated participants agreed they were confident and able to transfer course content knowledge into classroom instructional practices to meet the needs of a diverse student population.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate

for subquestion 3.1. The final analysis indicated course participants acknowledged a strong transference of course content knowledge into their classroom instruction.

Subquestion 3.2 Data Results

Subquestion 3.2 analyzed qualitative data collected through the ELMQ and IGO to determine if course participants' transferred ATPD course content knowledge to other teachers. Quantitative data were also collected on ATES questions 13 to 15 to determine if participants had transferred course content knowledge to other teachers.

Quantitative data, collected from ATES questions 13 and 14, which used a 5-point scale, received a mean score of 4.3 and 4.4. These two questions indicated that participants agreed they felt confident and able to transfer course content knowledge into classroom instructional practices. ATES question 15 received a mean score of 4.0, based on a 5-point scale indicating that ATPD course participants also agreed they felt prepared to assist other teachers to transfer ATPD course content knowledge into classroom practices.

Qualitative data collected from the IGQ included only a few responses. Of those responses only 5 out of 11 (45%) participants indicated they had transferred course content knowledge to other teachers. "Yes, we did [share] with our kindergarten team because Joan and I [took the class] and I am sure the word spread around the school." (P11) Since the ATPD course was offered late in the spring, the lack of time left in the school year to work with other teachers was the predominate

reason identified by course participants for not assisting other teachers. “I don’t think [I shared], only because this class got over at the very end of the school year.” (P9)

Qualitative data collected from the ELMQ also indicated only a few reflections about the sharing of ATPD course content knowledge with other teachers. “The lists in the articles may be good to share with other teachers to help in the school to realize what assistive technology is and that it can be very inexpensive.” (P8)

Subquestion 3.2 Data Analysis

Few participant responses were collected from the ELMQ and IGQ pertaining to the transference of course content knowledge to other teachers. Furthermore, no physical artifacts were shared with the researcher during the IGQ interview sessions. The reason suggested by course participants for the lack of transference of course information to other professionals was the lack of time remaining in the school year after the completion of the ATPD course.

However, quantitative data collected from ATES question 13 (mean score of 4.3) and ATES question 14 (mean score of 4.4) indicated participants agreed they were confident and able to transfer course content knowledge into classroom instructional practices to meet the needs of a diverse student population. Additionally, ATES question 15, with a mean score of 4.0, based on a 5-point scale, indicated participants agreed they were able to transfer course content knowledge to other teachers.

After triangulating both qualitative and quantitative data results through the GQTW, the DMM was applied to determine which DMM criteria were appropriate for subquestion 3.2 data results. The final analysis demonstrates a strong indication by course participants that they transferred course content knowledge into classroom instruction. However, course participants only indicated a few examples of course content knowledge transference to other practicing teaching professionals. Therefore, based on triangulated qualitative and quantitative results, the analysis indicated only a moderate transference of course content knowledge to other teachers.

Summary

A thorough analysis of data collected from the ATES, ELMQ and IGQ helped the researcher conclude that there was an indication that ATPD course content knowledge had been transferred into participants' classroom teaching practices and to a smaller extent, to other teachers.

All quantitative data collected from ATES questions 13 to 15 indicated participants agreed they were confident and able to transfer ATPD course content knowledge into classroom instructional practices and to other professionals. This was corroborated by qualitative data collected through the ELMQ indicating numerous examples of reflective responses about how participants would transfer ATPD course content knowledge into classroom instructional practices. Through qualitative data collected from the IGQ, participants not only provided anecdotal evidence of how they had transferred course content knowledge into classroom instructional practices,

but individuals also shared with the researcher examples of lesson plans and student instructional artifacts.

However, based on qualitative data collected from the IGQ and ELMQ, very few participants acknowledged transference of course content knowledge to other teachers. The one concern that most participants expressed was the lack of time between the completion of the ATPD course and the end of the school year. Therefore, the researcher determined, upon the completion of the ATPD course, a moderate level of transference of course content knowledge occurred to other professionals.

Guiding Question Four

Through the interview process, how do participants evaluate and describe the positive attributes, benefits, and problems they experienced learning within a hybrid-based environment?

Guiding question four analyzed ATPD course participants' overall perceptions pertaining to learning through a hybrid-based environment. Qualitative data were collected during the participants' individual interview sessions conducted three weeks after the ATPD course was completed. Subquestions were compiled to provide a more comprehensive study of guiding question four's data and are found in Table 18. Subquestion 4.1 includes IGQ data that were examined to identify the attributes of the ATPD course. Subquestions 4.2 and 4.3 also examined IGQ data to identify participants' concerns, (subquestion 4.2) and recommendations (subquestion 4.3) regarding the hybrid-based ATPD course.

Subquestion 4.1 Data Results

Subquestion 4.1 analyzed the positive attributes identified by participants through qualitative data collected from the IGQ. Attributes identified by ATPD course participants were the relevancy of content, support from peers, the facilitator, the CMS, and the feelings of community.

Table 18

Guiding Question Four Subquestions

Subquestion	Description
4.1	During the interview process, to what extent did course participants describe the positive attributes of a hybrid-based learning environment?
4.2	During the interview process, to what extent did participants express specific concerns about learning in a hybrid-based instructional environment?
4.3	During the interview process, what perceptions did participants express about hybrid-based learning and what recommendations did individuals suggest about professional development delivered through a hybrid-based learning environment?

Relevancy of Content

Qualitative data collected from the IGQ indicated predominately positive participant responses pertaining to the relevancy of ATPD course content. The availability of online course materials and resources was one attribute of the ATPD course identified in participant responses. “[The facilitator] taught us about each of the different things we can get or do online or that were accessible.” (P7) “I thought the articles were good; I enjoyed the [resources] it and I learned a lot from it [the resources].”(P8)

Another area related to content relevancy that received predominately positive participant comments was the integration of content into classroom instruction. Participants expressed satisfaction with course content that they could easily apply to classroom students with diverse learning abilities. “Probably what was most effective for me was using Writing with Symbols 2000 and making different work sheets that might be applicable for each individual child that I worked with, whether it would be speech or language.” (P1) “Yes, I have been able to facilitate communication symbols to help children and also to develop simplified say books, reading sentences to help a child to read.” (P9)

Another attribute pertaining to the relevancy of course content that received predominately positive responses was how ATPD course content was relevant for teachers of all grade levels. “I thought it was nice to hear different ideas especially from the fact that we were not all elementary teachers; the middle school teachers would have a different insight of what we thought, so that was interesting.” (P11) “Looking at the different levels [teaching] and everyone complementing other people, you hear people saying that was a great idea and that's good if you get good people it could be real positive.” (P8)

Support

Qualitative data collected from the IGQ also indicated predominately positive responses pertaining to the support individuals received from peers, the facilitator, and the CMS. When commenting on the support received from classroom peers, participants suggested they could have asked anybody enrolled in the ATPD course

for assistance. “Yes, definitely, not only from [the facilitator], but from our peers. This was evident during discussions, because if we didn’t know how to do something, like post, somebody in the discussion would ask and then somebody else would help. There was a lot of support there.” (P11) “With it being a hybrid, I knew who to talk to, and I knew all my classmates were reading the post so I could always ask questions and find out the answers." (P12)

Participant responses were also overwhelmingly positive when they identified the course facilitator as very supportive. The facilitator not only assisted participants with course content, but he also helped them with technology problems. “He [the facilitator] was excellent. He really goes out of his way to answer any question and I am not really big on computers. Also, I felt at the very beginning [of the course] I was very intimidating to take the class but he handled it really well and he never made me feel uncomfortable and by the end of it I felt completely 100% better.” (P7)

Additionally, qualitative data collected from the IGQ included mostly positive responses pertaining to the support provided by the CMS, Desire2Learn. “I felt like the Desire2Learn program was very easy. It was very sort of self-taught, but just simplistic enough that I could go in, I felt comfortable using it anytime. It was very accommodating for us little bit less than, you know, techie people.” (P9) “I felt like it [Desired2Learn] offered two venues, one that you could post something and say, what are you talking about? But the other was because of the way it [Desire2Learn] was setup. There were often ways you can go off [online] and discover those [materials and resources] things.” (P2)

Although most of the participant responses were positive, one course participant did suggest that, because of the facilitator's attentiveness and support, the CMS never became an issue during the tenure of the course. "I think that the instruction in the first class did cover how to use Desire2Learn, so overall I thought it was a very easy program to get use to." (P6)

Community

Qualitative data collected from the IGQ identified the feeling of community as another positive attribute course participants perceived that occurred during the ATPD course. "I think we did it did really turn into a community. I talked to people about things that I hadn't spoken to them about before even when I wasn't at the course."(P2) "Looking at different levels and everyone complimenting other people, you hear people saying that was a great idea and that's good if you get good people and their discussing things it could be real positive." (P8) Not only did participants identify the building of community as a positive attribute of the ATPD course, but respondents also described the course as a safe learning environment. "I felt we were a community. It was a very good group of people. Very good pulling everybody together and making everybody feel comfortable and welcomed." (P9)

Subquestion 4.1 Data Analysis

Qualitative data were collected from the IGQ and categorized according to the positive attributes identified by course participants. The main topics that respondents suggested were the most positive aspects of the ATPD course included the relevancies of course content; support received from the course facilitator, peers, and

CMS; and the building of community among the members of the ATPD course. No quantitative data were collected for this subquestion. However, all qualitative data was entered into the GQTW and applied to the DMM to determine which DMM criteria were appropriate for subquestion 4.1 data results. The final analysis indicated ATPD course participants acknowledged numerous positive attributes pertaining to learning through a hybrid-based environment.

Subquestion 4.2 Data Results

Subquestion 4.2 analyzed participants' concerns pertaining to the ATPD course. Although qualitative data collected from the IGQ did indicate a few concerns, those problems that were identified by participants were confusion with online activities, the facilitator's management of the online portion of the ATPD course, and the amount of time allocated for review of course content.

Online Instructional Activities

One of the areas of concern identified by participants through the IGQ was the online instructional activities. One area of concern was the discussion forum conducted during the online learning modules. "To an extent the discussion groups were okay. We all talked about the fact that you didn't get all the feedback. But when you got all the feedback it was overwhelming." (P2) "Now at the end it [discussion forum] was confusing when we had everybody on the discussion because I kind of got lost like whose am I looking at now and that kind of thing." (P7) "At times it was a little hard to follow and sometimes I didn't really know what was expected so I had to like kind of collaborate with other people to get a definitive

answer on what was going on." (P12) Furthermore, participants identified the lack of direction or management of the online course learning modules as a concern. "Sometimes directions weren't as clear as would have helped." (P4) "He [the facilitator] could certainly, on a regular basis, reminded people [about expectations of the assignments], and also put it in his [the facilitator's] rubric." (P2)

Another area participants expressed concerns about was the redundancy of instructional activities that occurred during the online portion of the ATPD course. "The discussions going back and forth were the biggest hang-up for me as well as the class. We just didn't have enough information to keep it going." (P9) Participant responses also addressed the assignments that were given during the online portion of the course. "[We need] more information about some of the technology, about some of the case studies that we did. I needed more information about the students, more information about what was available to help those students that's the whole point of the case studies and the discussions of the case studies." (P12)

Course Review Time

In addition to concerns about online instructional activities, responses collected through the IGQ also suggested individuals needed more time to review course knowledge. These concerns are voiced throughout the four guided questions. "I would like more time reviewing course information and some kind of organization or a hardcopy or handout of the different kinds of assistive technology." (P8) "I think I do better when I can go back on my own and take the time to process it and then review it. However, the time to do that was not available." (P9)

Subquestion 4.2 Data Analysis

Qualitative data collected from the IGQ were categorized according to perceived concerns. The concerns included the confusion that teachers stated occurred during the online discussion forum and the redundancy of activities. Additionally, teachers stated there was not enough review time allocated for instructional content.

No quantitative data were collected for subquestion 4.2. All qualitative data were entered into the GQTW and applied to the DMM to determine which criteria were appropriate for subquestion 4.2 data results. Although the numbers of concerns were few, the emphasis on problems pertaining to online learning modules weighed heavily in a hybrid-based course study. Therefore, the final analysis indicated ATPD course participants acknowledged few concerns pertaining to learning through a hybrid-based environment.

Subquestion 4.3 Data Results

Subquestion 4.3 analyzed data pertaining to participants' overall perceptions about hybrid learning. Data were also collected from the IGQ pertaining to participants' recommendations about professional development delivered through a hybrid-based learning environment.

Hybridity

Data collected from the IGQ were divided into two categories. The first category included participants' responses to IGQ question 21 which requested respondents to describe hybridity. "[I would describe it as] a little bit of both, you

know online and classroom, and a lot of times I thought it was a community kind of atmosphere and some times it was independent." (P4) "Pertinent information is received during the classroom time that can be used during the week at the online portion which is an extension of the face to face class." (P5)

The second category identified qualitative responses pertaining to learning through a hybrid-based instructional model. "I think a hybrid-learning course is an easier way to take a class for professional training. It allows a person to get activities done at his or her own pace." (P7) "I like the idea of taking a class that is not drawn out everyday. You can do a lot of it online after school or at home during the nighttime or weekends." (P8) "I like the way it was setup; I like that there still someone to guide you if you have a question you can come back and ask them but you are still independent to work at your own speed and still learn with all the tutorials that he had." (P3) Participant responses from both groups of data were predominately positive. Furthermore, 100% of participants indicated through IGQ question 24 that they would take another hybrid-based professional development course if it was offered by the school system or other educational facility.

Recommendations

IGQ question 22 asked ATPD course participants if they would recommend the ATPD course to other teachers. 100% of the participants indicated they would recommend the course to other teachers. One of the reasons participants suggested why they would recommend the ATPD course was because of its content. "Yes, I think every teacher needs to take it. They don't teach you this in college. New

teachers don't know any of this stuff. Maybe they do but I didn't know half of this stuff. "(P8) "Yes. I thought it was very informative and I think it was very good for us to know what is out there that is available to these children that are having difficulties, in ways we can help them because I didn't know a lot about some of this stuff so its nice to know about it, in case I have a child in my classroom that would need it." (P11)

Other recommendations pertained to the hybrid instructional environment of the ATPD course. "I would definitely recommend it. Since I took a completely online class, I think that hybrid is the way to go. I liked the support there. I liked it. I liked the fact that we had the face to face to have those explanations of things we didn't understand through out the week but I also like the online part of it too because you had the luxury of doing it from your home. But you were also interacting with other people in the computer so you get their input and their ideas as well as putting in your own. So I liked both aspects of it." (P11)

Participants' responses also suggested the increase in personal technology efficacy as a reason to enroll in the ATPD course. Some participants indicated technology efficacy increased after completing the ATPD hybrid-based course. "I would [recommend the ATPD course] It gave me the opportunity to learn and be more efficient on the computer. " (P1) "It [The ATPD course] definitely has caused me to want to take more technology and learn more about assistive technology." (P12)

Subquestion 4.3 Data Analysis

Participant responses collected from the IGQ were categorized according to hybrid-based professional development and the hybrid-based ATPD course. Participants (100%) indicated they would take another hybrid-based professional development course. Respondents (100%) also indicated they would recommend the ATPD course to other teachers. Participants' perceptions about the hybrid-based instructional model and the ATPD course were predominately positive. Respondents also expressed positive remarks about the ATPD course because of the relevancy of content and how the course increased some individuals' technology skills. No quantitative data were collected for subquestion 4.3.

All qualitative data were entered into the GQTW and applied to the DMM to determine which criteria were appropriate for subquestion 4.3 data results. The final analysis indicated numerous recommendations from participants pertaining to the hybrid-based professional learning model and specifically the ATPD course.

Summary

A thorough analysis of data assisted the researcher to determine that participants received a positive learning experience through a hybrid- based instructional model. This recommendation is based upon the application of DMM indicators during the final analysis of triangulated data for each of the three subquestions. Qualitative data were collected from the IGQ and categorized according to positive attributes, expressed concerns, and overall recommendations pertaining to a hybrid learning environment and the hybrid-based ATPD course.

The positive attributes included the hybrid instructional framework; support provided by the course facilitator, peers and CMS; the feelings of community; and the relevancy of course content. Many teachers also suggested that a hybrid-based course assisted in an increase in technology self-efficacy. The concerns expressed by participants, although few, pertained to confusion with online instructional activities and the management of the online learning modules. Responses by participants indicated 100% would enroll in another hybrid-based professional development course. Furthermore, respondents would recommend the ATPD course to other teachers.

Based on the few concerns expressed by participants and the predominately positive recommendations collected from IGQ qualitative data, study participants' perceived the hybrid-based professional development was an acceptable learning model for themselves and other K12 teachers.

Summary

All of the K12 teachers who enrolled in the ATPD course participated in this study. Seven (58%) had more than 10 years of teaching experience. Five (42%) had less than 10 years of teaching experience. Four (33%) were special educators and eight (67%) were regular curriculum teachers; all were tenured by a local public school system. Ten (83%) of course participants were comfortable with searching the Internet, but only 6 (50%) were comfortable downloading information from the Internet. Twelve (100%) of course participants completed the qualitative and

quantitative ATCPT, HPDR, ELMQ and ATES assessment instruments. However, only 11 (92%) of participants were interviewed during the IGQ sessions.

Guiding question one had five succinct subquestions. Each subquestion collected pertinent qualitative and quantitative data that were triangulated to determine if the ATPD course exemplified the characteristics of high quality, hybrid-based learning environment. All data results for each subquestion were triangulated through the GQTW (Appendix K) and applied to the DMM (Appendix L). Qualitative data collected from the IGQ and the ELMQ, and quantitative data collected from the HPDR and ATES, demonstrated a moderate to strong level of acknowledgement that the ATPD course exemplified high quality, hybrid-based learning characteristics.

Guiding question two had five succinct subquestions. Each subquestion collected pertinent qualitative and quantitative data that were triangulated to determine if the hybrid-delivered ATPD course increased participants' building of course content knowledge. All data results for each subquestion were triangulated through the GQTW and applied to the DMM. Qualitative data collected from the IGQ and the ELMQ, and quantitative data collected from the ACTPT and ATES, demonstrated a moderate acknowledgement by course participants of an increase in the understanding and building of ATPD course content knowledge.

Guiding question three had two succinct subquestions. Each subquestion collected pertinent qualitative and quantitative data that were triangulated to determine if ATPD course participants indicated that they had transferred course

knowledge into classroom instructional practices. Additionally guiding question three data were collected to determine if participants had transferred course content knowledge to other teachers. Data results for each subquestion were triangulated through the GQTW and applied to the DMM. Qualitative data were collected from the ELMQ and the IGQ. Quantitative data collected from the ATES demonstrated a moderate level of transference of course content knowledge into classroom practices and to other professionals.

Guiding question four had three succinct subquestions. Each subquestion collected pertinent qualitative data to determine if participants' identified attributes and concerns that occurred during their experience learning through a hybrid-based professional development course. Furthermore participants' recommendations about hybrid-based professional development were collected from the IGQ interview sessions. Qualitative data indicated that ATPD course participants' responses were predominately positive about hybrid-based professional development. Participants also indicated that they would all take another professional development course that was offered through a hybrid-based learning environment. Additionally, course respondents reported they would also recommend the ATPD course to other teachers.

CHAPTER V. DISCUSSION

Meeting national and state curriculum, professional development and technology standards has taken on a new sense of urgency since the passing of the No Child Left Behind Act (NCLB) of 2002. Part of this legislation mandated that K-12 educators receive high quality professional development in their area of expertise. The catalyst for this instructional reformation was educational research that concluded a teacher or community of teachers who engaged in a formal study of curriculum or a teaching strategy that could be used across the curriculum would substantially increase the odds of raising student achievement (Joyce & Showers 2002).

Because of the necessity to offer high quality professional development to all practicing K-12 teachers, public school administrators began to investigate professional development learning modalities that embraced learner-centered instruction that matched individual teachers' learning styles. The instructional framework needed to also complement instructors' busy teaching schedules and have built-in follow-up procedures and support. Hybrid-based learning environments can offer seamless integration of the best practices of online and traditional classroom learning pedagogies, and are thought to be an acceptable learning environment for adults because they support many of the characteristics of successful adult learning. Hybrid-based learning can provide an effective framework for ongoing professional development because it allows the adult learner to get away from isolated, stand alone

events and transition into technology-enhanced activities through a community of support provided by the facilitator and peers.

Although very little research is available pertaining to K-12 professional development delivered through a hybrid-based learning environment, the model has been implemented in higher education facilities with promising results (Dziuban, Hartman & Moskal, 2004). The purpose of this investigation was to determine if a hybrid-based learning environment was perceived by K-12 teachers to be an effective learning modality. Specifically, the study investigated if K-12 teachers increased the building of course content knowledge and indicated that they had integrated course knowledge into daily instruction. This chapter contains the following sections: a summary of this research, discussion of results, recommendations, and conclusion.

Summary

This study examined the effectiveness of hybrid-based professional development. The targeted population for this study was K-12 general and special educators teaching in a public school district. All participants who enrolled in the Assistive Technology Professional Development (ATPD) course participated in the study. Seven participants (58%) taught more than ten years; five (42%) had taught less than 10 years. Four (33%) participants were certified as special educators; eight (67%) were considered regular curriculum teachers. Eight participants taught at the elementary level; four (33%) taught at the middle school level. Only two participants had taken an online or hybrid professional development course in the past two years.

Although ten (83%) participants were comfortable with searching the Internet, only six (50%) were comfortable downloading information from the Internet. Study data were collected from course participants through the implementation of three quantitative and two qualitative instruments designed specifically for the ATPD course. The following is a summary of data that were collected through the various instruments then triangulated and analyzed through the Decision Making Matrix (DMM).

Guiding Question One

Using data collected through the Hybrid-Based Professional Development Course Review Rubric (HBDR), guiding question one analyzed the Assistive Technology Professional Development (ATPD) course to determine if it reflected the characteristics of high quality, hybrid learning. Participants of the ATPD course indicated that the professional development course received a 98.8% overall score. HPDR data results were corroborated with participants' responses collected from the Assistive Technology Exit Survey (ATES). Mean scores for ATES questions ranged from 3.75 to 4.50, on a 5-point scale (1 = strongly disagree, 5 = strongly agree). When applied to the DMM criteria, these data indicated a strong acknowledgement by participants that high quality, hybrid-based learning characteristics were present in the ATPD course.

Qualitative data were collected from the End of Learning Modules Questions (ELMQ) and the Interview Guide Questions (IGQ). The IGQ and ELMQ responses identified the positive attributes of support from course technology, peers, and

facilitator; learning that was relevant to individuals' personal and professional needs; and the feeling of community as the main strengths of the ATPD course. The analysis also identified the concerns about lack of clarity in course direction, practice and review time, and the management of online learning modules and activities. Based on DMM criteria, Table 19 summarizes course participants' level of acknowledgement for each subquestion. A final analysis of all data indicated participants perceived a moderate to strong level of acknowledgement that the ATPD course exemplified high quality, hybrid learning characteristics.

Table 19.

Participant Level of Acknowledgement

	Decision Making Matrix Results	
Sub Questions	Quantitative	Qualitative
1.1	Strong	Moderate/Strong
1.2	Strong	Moderate/Strong
1.3	Strong	Moderate/Strong
1.4	Strong	Strong
1.5	Strong	Strong

Note: The DMM indicators suggest participants' level of acknowledgement that the ATPD course reflected high-quality hybrid-based learning characteristics. (Strong = over 75% of criteria evident, Moderate = over 50% of criteria evident, Weak = over 25% but less than 50%, and no criteria evident = less than 25%).

Guiding Question Two

Through the application of the Assistive Technology Content Pre-Test Post-Test (ATCPT), guiding question two analyzed if participants experienced an increase

in the building of course content knowledge. Specifically, the researcher wanted to determine if there was a significant increase ($p<.05$) for each of the following groups: individuals who taught more than 10 years, individuals who taught less than 10 years, special education teachers and regular curriculum teachers. Data indicated there was a significant level of increase for all ATPD course participants, teachers with more than 10 years of teaching experience, less than 10 years of teaching experience, and regular curriculum educators. However, special education teachers did not indicate any significant increase on the ATCPT at $p<.05$.

Additionally, the percent of increase between pre-test and post-test mean scores were analyzed for each of the participant groups. Data from all ATPD course participants, individuals who taught less than 10 years, regular curriculum and special education teachers when applied to DMM criteria indicated a moderate level of increase in the building of course content knowledge. However, teachers who taught more than 10 years indicated only a weak level of increase on the ATCPT.

ATCPT results were also compared to participants' responses collected from the ATES. Mean scores for ATES questions, ranged from 3.75 to 4.50, based on a 5-point scale (1= strongly disagree, 5=strongly agree). When applied to the DMM criteria, these data indicated a moderate level of increase in the building of course participants' content knowledge.

Qualitative data for guiding question two were collected from the ELMQ and the IGQ. Positive course attributes that assisted participants in the building of course content knowledge were identified as the course hybrid framework, course

technology and specific assistive technology software programs. Respondents' concerns were identified as facilitator management of the online learning modules and online instructional activities. Based on DMM criteria, Table 20 summarizes course participants' level of acknowledgement for each subquestion. A final analysis of all data suggested a moderate level of increase in the building of course content knowledge.

Table 20

Participant Level Indicating the Building of Course Content Knowledge

	Decision Making Matrix Results	
Subquestions	Quantitative	Qualitative
2.1	Weak/Moderate	N/A
2.2	Moderate	N/A
2.3	Moderate	Moderate
2.4	Moderate	Moderate
2.5	Moderate	Moderate

Note: The DMM criteria for the building of course content knowledge is based on the following indicators for quantitative data (Strong = over 60% increase in the building of course content knowledge, Moderate = over 35% of increase, but less than 60%, Weak = less than 35%, and no increase evident). N/A = no qualitative data was evident for specific subquestions. The DMM criteria for the building of course content knowledge is based on the following indicators for qualitative data (Strong indication = predominately positive responses, Moderate indication = some positive responses, little indication = predominately negative responses, no indication = all negative responses).

Guiding Question Three

Guiding question three analyzed ATPD course participants' reported transference of course content knowledge into classroom practices and to other teaching professionals. Qualitative data were collected from the IGQ and ELMQ. Data were also collected from ATES questions that reflected an average mean score of 4.35, based on a 5-point scale (1= strongly disagree, 5=strongly agree). Furthermore, all ATPD course participants (100%) indicated they had transferred course content knowledge into classroom teaching practices. During individual interview sessions, participants also shared with the researcher personal lesson plans and student work that indicated ATPD course content knowledge transfer into classroom teaching strategies.

Although ATES question 15 indicated that participants agreed they would share course content knowledge with other teachers, only 45% of the respondents acknowledged they had actually shared course knowledge with other teachers. The predominant reason given was the lack of time left in the school year between the completion of the ATPD course and the last day of school. Based on DMM criteria, Table 21 summarizes course participants' level of transference for each of the two subquestions.

A final analysis of all data used for subquestion 3.1 suggested a strong level of perceived transference of course content knowledge into teachers'personal classroom instruction; for subquestion 3.2 a moderate level of transference of knowledge to

other teachers occurred. The overall level of transference for guiding question three was ascertained by the researcher as strong to moderate.

Table 21

Acknowledged Level of Participant Transference of Course Content Knowledge

	Decision Making Matrix Results	
Sub Questions	Quantitative	Qualitative
3.1	Strong	Strong
3.2	Moderate	Moderate

Note. The DMM criteria for the transference of course content knowledge is based on the following indicators for all data (strong = numerous examples of transference of course content knowledge, moderate = some examples of transference of course content knowledge, little = few examples of transference of course content knowledge none = no transference of course content knowledge).

Guiding Question Four

Guiding question four analyzed ATPD course participants' overall perceptions pertaining to learning through a hybrid-based environment. Data were collected from the IGQ. During the interview sessions, participants' perceptions about the positive attributes, and concerns were collected and categorized. In addition, participants shared their overall recommendations about the hybrid learning experience. Based on qualitative data analysis, participant responses showed to be predominately positive with regard to the course hybrid format, relevancy of content, support offered through course technology and the course facilitator. Participants also identified the importance of community and how the feeling of community assisted them

throughout the hybrid learning experience. Respondents also suggested, through IGQ data, that the hybrid-based ATPD course help increase technology self-efficacy.

Course participants' concerns that appeared throughout all guiding questions were confusion with online learning directions and the redundancy of some online activities. Moreover, respondents expressed the need for more instructional review time. However, respondents also indicated they would take another hybrid-based professional development course if it was offered (100%). Participants also recommended the hybrid-based ATPD course to other teachers (100%).

A final analysis of all guiding question four data results suggested participants identified numerous examples of positive attributes and only a few concerns. In general, participants overwhelmingly recommended learning through a hybrid-based instructional model and specifically the ATPD course.

Although this study summary enumerates the findings for each guiding question, an in-depth discussion of both the identified positive attributes that were effective and those strategies that participants perceived were ineffective should be conducted to determine how to expand effective strategies into future hybrid courses and amend those that were not.

Discussion

This study sought to determine if hybrid-based professional development can be an effectual learning model for delivering K-12 professional development. Results of this analysis revealed that participants in a K-12 professional development course rated the ATPD course very high when comparing its attributes to standards for high

quality hybrid learning. Additionally, all participants showed a significant increase in learning ($p<.05$), with the percent of increase for ATCPT pre test and post test mean scores were well within a moderate level of increase (less than 60%, but over 35%).

All of the participants (100%) indicated, through interview and survey, that they had transferred course content knowledge into classroom teaching practices, even though only 42% had shared course content knowledge with other teachers. Furthermore, according to participants' responses, if another hybrid-based professional development course was offered, all would enroll in it. Existing research pertaining to the characteristics of adult learners provides the background for interpretation of the findings from this study.

Hybrid-based Learning Frameworks

Imel (1998) argued that technology-based learning frameworks could enhance adult learning because the technology enhanced access to expertise, facilitated discussion among learners who could not meet face to face, and encouraged transformative and collaborative learning. Course participants were overwhelmingly positive about the ATPD course's hybrid-based learning framework and how the structure of the course assisted these teachers to juggle coursework, professional duties and home responsibilities. Moreover, course participants suggested the hybrid framework provided them the opportunity for reflective practice.

According to research by King (2002), reflective practice facilitated transformational learning when adult learners examined new knowledge and incorporated the information into their world view and practice. This is exemplified

through the data results for guiding question three, where participants (100%) strongly acknowledged that they had transferred course content knowledge into classroom teaching practices. Additionally, although the online portion of the ATPD course received some negative comments during individual interview sessions, 100% of participants stated they would recommend hybrid learning to other teachers. These same participants stated that they would take another hybrid professional development course if one was available. These results are important because they set the groundwork for further research into how hybrid learning environments may be an instructional framework that complements transformative learning by providing teachers with professional development opportunities that encourage active learner-centered practice.

Management of Course

According to responses from the ELMQ and quantitative data collected from course participants, online course management received mostly negative scores and comments. Research by Dunkle and Leite (2004) indicated that considerations should be made for students who do not feel at ease with online portions of a hybrid classroom. Based on the comments received from most ATPD course participants, the root causes for their concerns were the redundancy of materials, the confusion experienced with online discussion activities, and the transition time from the online portion of the course into the traditional classroom learning modules. Dunkle and Leite (2004) reported that, for some adult learners, clear structure and facilitation techniques could help adults with the difficulties they experienced learning online.

Hanna, Dudka and Unlee (2000) also suggested that providing additional time in which course materials are reviewed thoughtfully and reflectively can help learners keep pace with the course. This may have become evident through qualitative data that were collected during the individual interviews indicating that some of the individuals, who earlier in the course expressed concerns about the online course management of the ATPD course, appeared to not consider this portion of the learning process as much of a problem after the course was completed.

It is possible these perceptions changed after the facilitator was able to view these comments and suggestions through the CMS during the ATPD course, and based on this real time feedback, made a conscientious effort to improve these problems. Many IGQ comments recognized that the facilitator began to allocate additional classroom time for those ATPD course members who had questions about the online activities. These additional review sessions conducted at the beginning of each face-to-face class helped to address some of the confusion expressed after the completion of each online activity. These findings indicated that further research may need to be conducted to determine the most effective online management system for adult learners who have enrolled within a technology-based professional development course and require a rigorous content review process.

Learner Support

Literature investigating successful adult learning has ascertained the relevancy of the presence of an effective support infrastructure. Adults need to receive feedback on how they are doing and the results of their efforts. Additionally,

professional development must be structured to provide support from peers and the facilitator to reduce the fear of judgment during the learning (Speck, 1996). Study results indicated participants believed that assistance was available from fellow participants and the course facilitator. Throughout the course, data revealed the facilitator was complimented for the assistance he provided during and after the online and traditional classroom learning modules.

Also noteworthy, respondents indicated course technology and material resources assisted them in learning course content. Knowles (1978) suggested that adults, as self-directed learners, needed to be provided with adequate resources and technology tools in order to direct their own learning. ATPD course technology, the course syllabus, and tutorials were identified as critical components of the ATPD course and aided in the respondents' successful learning experience. Future research needs to be conducted to determine how these course support tools can further decrease many adult learners concerns and fears about technology-based learning opportunities.

Community

The feeling of community was expressed numerous times during the individual interview sessions. Creating a safe learning environment through small group interaction is believed to strengthen the development of community among learners (Street, C., Ivers, K., Joyce, L., Bray, M., Carter-Wells, J., Glaeser, B., 2004). Those ATPD course members who were experiencing some confusion and difficulty with the online learning activities suggested that the ability to share

concerns about the course with others assisted them to successfully complete course activities and tasks.

King (2002) also suggested that a safe learning environment, where adults learn to share knowledge and are encouraged to collaborate in activities, created successful learning experiences. Analysis of study data indicated that ATPD course participants (100%) reported they experienced a feeling of community. These same individuals also demonstrated a moderate increase in the building of course content knowledge ($p<.05$). Participants (100%) also acknowledged transferring course content into their classroom practice. These results are important because they appear to confirm research that suggests a feeling of community can create an effective learning environment for adult learners.

Relevancy of Content

According to Speck (1996), adult learners need to see that the professional development learning and their day-to-day activities are related and relevant. Quantitative and qualitative data analyzed through this study revealed that course participants perceived the ATPD course content was relevant to their individual and teaching needs. These results are noted by King (2004) who concurred that adult learners are more successful when being involved in experiences that supplemented learners' prior knowledge and was timely. ATPD course content, especially the assistive technology software that participants were given the opportunity to utilize, received numerous positive responses.

Although the participant group of special educators did not reflect a significant increase in course knowledge, ($p<.05$), all other participant groups did according to ATCPT Pre and Post Test scores. This suggests, as stated earlier, that participants internalized content knowledge, and according to the results from guiding question three, were integrating the knowledge into classroom practices.

Once again, the one negative aspect related by course participants through qualitative responses and quantitative results was the lack of practice or review time with these programs. Adult learners need to be provided an opportunity to practice, analyze, and synthesize the information they receive during an instructional activity (King, 2002).

Technology Self-Efficacy

Imel 1998 indicated that adults could learn content through technology and these adults could also develop competent technology skills through course content that effectively infused technology. At the beginning of the study, many participants' responses implied that individuals were nervous about utilizing the course management system (CMS) and assistive technology software. However, during the individual interview sessions conducted after the ATPD course was completed, most of those teachers who had expressed concerns were discussing how confident they felt in general about technology and specifically, course technology. This finding is important since it suggests that adult learners, who practice technology through its integration with professional development conducted within a "safe" learning community, effectively increase personal technology self-efficacy. It would be of

interest to replicate this research using a different content area to determine how the use of hybrid learning frameworks helps adult learners who are uncomfortable with technology increase their technology skill level.

Recommendations

The analysis of the data collected through this study helped to support the argument that K-12 professional development can be effectively delivered through a hybrid-based learning environment. The hybrid framework helps to promote transformational learning and complements adult learning characteristics, which for K-12 teachers are the critical components of a successful learning experience. Those components in this study that were perceived as important to the success of the ATPD course were as follows: supportive framework offered through the course facilitator and technology, the establishment of a sense of community, and course content relevancy. The following recommendations are offered based on these critical indicators.

Since there is very little research available about the use of K-12 professional development delivered through a hybrid-based learning environment, this study should be conducted using other curriculum content areas. Because educators are required to keep their teaching certification current, offering other core content professional development courses through a hybrid learning framework would provide additional data relevant to teachers' experience learning through this type of instructional modality. Additionally, this study should be replicated with a larger population of teachers. The current study was conducted using a sample of 12

participants. For a small public school system a professional development course of 12 teachers is considered a normal class size. However, duplicating the study with an increased population would add validity to research findings.

One of the most prelevant findings from this study was the building of community that was reported by participants throughout the interview process. Even with the growth of work in this area, a study focused on identifying the components of a hybrid learning infrastructure that promoted the building of community would provide additional insight for instructional designers who were charged with creating professional development courses that acknowledge the special needs of the adult learner.

One attribute of adult learning which this research found to be critical for successful transformative learning was a course facilitator who was not only supportive, but was also well trained in the effective learning pedagogies for the unique needs of the traditional and online classroom. A course facilitator who was able to include a variety of online learning activities and better manage the online environment would probably have helped to eliminate confusion and concerns expressed by all course participants about the online segment of the ATPD course.

The ATPD course was a general assistive technology course offered for all practicing teachers (i.e. regular and special educators). It appears that since most special educators have more prior knowledge about the needs of diverse student learners, their results from the ATCPT indicated no significant increase ($p<.05$). Due to most special educators prior knowledge levels further studies, using this

professional development course should be performed with a more homogeneous group of teachers in order to further determine the correlation between the technology-based learning framework and the building of course content knowledge.

The implementation of a longitudinal study considering the transference of course content knowledge into teachers' classroom practice would be worthwhile. Data from this study indicated that all course participants (100%) integrated information they learned into classroom pedagogy. A study, over time, incorporating observation of teaching practices by researchers could provide further insight into the extent to which the results of hybrid-based learning are integrated into actual classroom practices.

This study also utilized a newly designed evaluation instrument. The Hybrid-Based Professional Development Course Review Rubric (HPDR) was developed to determine if an existing hybrid-based course embraced the attributes of high quality, hybrid learning. To assist in the development and design of further hybrid-based courses, further use of the HPDR would strengthen the validity of the instrument.

Conclusion

This study's results suggest the hybrid-based ATPD course was an effective learning experience. The results from the study along with existing research that has been conducted in higher education facilities should become the catalyst for future studies to establish the hybrid-based learning model as a viable learning environment. Unfortunately, research is not as extensive as should be pertaining to K-12 professional development delivered through a hybrid-based learning environment.

Along with providing practicing teachers with professional development that is delivered through a hybrid-based learning model, it is just as important to construct a professional development course that is facilitated by an instructor that is not only supportive but also has had training in the most effective transformative learning pedagogies for online and traditional classroom instruction. Moreover, the characteristics of effective adult learning should be a relevant part of any professional development course that is developed for practicing teachers, especially if any portion of the course is conducted online.

The 21st century classroom requires K-12 teachers to increasingly provide learning opportunities for their students that will prepare these future adults to become successful and productive individuals. In order for teachers to balance both personal needs and the increasing pressures of keeping their teaching skills and knowledge current, it is critical for public school officials to provide teachers transformative learning through an instructional model that is timely and effective.

This study was conducted to determine if hybrid-based learning environments may be an instructional model that fulfills all the requirements that practicing teachers as adult learners require. Upon completion of the study it can be argued that professional development delivered through the hybrid-based learning environment is an instructional model that can be acceptable for the needs of practicing K-12 teachers, especially those K-12 teachers who have many concerns about technology and online learning.

APPENDICES

APPENDIX A – Institutional Review Board and Local School System Approval Letter

TOWSON
UNIVERSITY

APPROVAL NUMBER: 05-A043

To: Diane Larrimore
From: Institutional Review Board for the Proctection of Human Subjects,Melissa Osborne Groves,
Date: Tuesday, February 15, 2005
RE: Application for Approval of Research Involving the Use of Human Participants

Thank you for submitting an Application for Approval of Research Involving the Use of Human Participants to the Institutional Review Board for the Protection of Human Participants (IRB) at Towson University. The IRB hereby approves your proposal titled:

Does Hybrid Delivered K-12 Professional Development Create a Paradigm Shift in Teachers' Classroom Instructional Practices

If you should encounter any new risks, reactions, or injuries while conducting your research, please notify the IRB. Should your research extend beyond one year in duration, or should there be substantive changes in your research protocol, you will need to submit another application for approval at that time.

We wish you every success in your research project. If you have any questions, please call me at (410) 704-2236.

CC: W. Sadera
File

TOWSON
UNIVERSITY

RENEWED APPROVAL NUMBER: 05-A043R1

To: Diane Larrimore
From: Institutional Review Board for the Protection of Human Subjects Melissa Osborne Groves, Member
Date: Wednesday, May 10, 2006
RE: Application for Research Involving the Use of Human Participants

APPROVED MAY 10 2006 TOWSON IRB

Ice of University
Research Services

owson University
8000 York Road
MD 21252-0001

t. 410 704-2236
f. 410 704-4494

Thank you for completing the Annual Review Notice for Projects Involving Human Participants for the project titled:

Does Hybrid Delivered K-12 Professional Development Create a Paradigm Shift in Teachers' Classroom Instructional Practices

Since you have indicated that your research project is still active, we are granting you a renewal of your approval. If you should encounter any new risks, reactions, or injuries while conducting your research, please notify the IRB. Should there be substantive changes in your research protocol, you will need to submit another application for approval at that time. This protocol will be reviewed again one year from this date of approval.

We wish you every success in your research project. If you have any questions, please call me at (410) 704-2236.

CC: W. Sadera
File

January 10, 2005

Dr. Carol Williamson, Associate Superintendent
Queen Anne's County Public School System
202 Chesterfield Ave.
Centreville, MD 21617

Dear Dr. Williamson,
My name is Diane Larrimore and I am a doctoral student in the Department of Instructional Technology at Towson University. As part of my doctoral dissertation research, I am conducting a study in tandem to the Assistive Technology Professional Development Course that the Board of Education of Queen Anne's County is offering this spring. I will be conducting a qualitative and quantitative analysis that will encompass the following research questions: To what extent does a professional development course exemplify the characteristics of a high quality hybrid-learning environment (50% online and 50% in the traditional classroom)? Will K-12 teachers develop an increase in understandings of course goals and objectives after completing a hybrid professional development course? And, will participants who complete a hybrid delivered professional development course incorporate course content into teaching pedagogies at least six weeks after the completion of the course?

Assessment procedures used by me, the researcher, will include a pre-post content test, end of learning module evaluation questions (given after each learning module is completed), a course exit survey, of which approximately five study participants will be interviewed by the researcher, six weeks after the completion of the course. Participation by course students within this study is strictly voluntary. All study participants names will be deleted from all analysis of data procedures and from the final evaluation report. During the analysis of data and final evaluation report the only identifying characteristics that will be used will be gender, number of years teaching, teaching level and subject. Study participants may discontinue their participation in the project at any time. Participants will be informed that their decision whether or not to participate in the project or to withdraw from the project at any time will in no way affect their employment status or grade in this course. In addition, none of the study participants will be identified to you or how they responded.

If you have any questions about the project, you may contact Diane Larrimore at (410) 708-2068, ext. 136, my faculty advisor, Dr. Bill Sadera at (410) 704-2731, the Chairperson of Towson University's Institutional Review Board for the Protection of Human Participants, Dr. Patricia M. Alt, at (410) 704-2236. A copy of the results of the analysis of data will be provided to all study participants approximately 8 months after the completion of the course. All participants will be invited to see the results as a group, or at individual meetings that the investigator will conduct, depending on the request of study participants.

I, Carol Williamson, affirm that I have read and understood the above statement and give my permission for this study to be conducted in the Queen Anne's County Public School System, during the Assistive Technology Professional Development Course.

Date: 1-11-05

Signature: Carol Williamson

APPENDIX B – Assistive Technology Professional Development Course (ATPD) Syllabus

Syllabus
Assistive Technology Professional Development Course

OVERVIEW OF COURSE:

Educators continue to face the challenge of addressing the needs of all students in their classrooms. This professional development course provides information on how to best serve students with various learning styles through technology. Sessions will be approximately 50% on-line and 50% held within a traditional classroom. This method of instructional delivery will allow participants both a hands-on experience to explore various technologies and also the opportunity to understand the theoretical background that creates the framework for assistive technology and its effect on student achievement.
The basic format of this course is that assigned groups of participates will work together in a traditional computer lab during one module to explore, record, and post information about specific assistive technology software or device(s) one week and then devote the next week to comparing and contrasting the findings of other groups to discuss the appropriateness and possible applications of similar software/devices. Participants are expected to complete a minimum of 45 hours in face-to-face and on-line discussions. All components of the course are to be completed for the 3 MSDE Professional Development Credits.

Each participant will post a description of a student from their instructional classroom who is experiencing difficulty. One or more of these case studies will be published on line each week for the class to discuss possible assistive technology accommodations and modifications to address that student's needs. The culminating activity for the course is for each participant to complete an assistive technology assessment using the SETT model. The use of input from past discussions about each individual case is encouraged.

COURSE GOAL:
Participating teachers will increase their knowledge of and ability to appropriately implement assistive technology to address the multiple needs of students in the classroom, including those with specific disabilities.

Module 1 – Face-to-Face
This first module will introduce participants to the course content, requirements, and website. Members will compare their concept of what assistive technology is by comparing their list of assistive technology devices before and after discussing the federal laws (IDEA) definition of assistive technology services.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Identify the course's online content, materials, logistics, and assignments
Work collaboratively to post a list of different types of assistive technology.

Manipulate an electronic learning infrastructure, i.e. Desire2learn
Define assistive technology.
Discuss the trends and issues of assistive technology, including current laws, and the use of the IEP in addressing the specific needs student with disabilities.

Assignment and Instructions:
Introductions
Students will access the Desire2Learn site.
Specific tools: calendar, content, discussion, quizzes will be introduced.
Learners will complete the posted pre-assessment in the quiz section.
Learners will access the course syllabus online.
Compare to MDSE's PT3 Standards
Each individual will list examples of assistive technology within their group discussion area and share with that group
Each group will work collaboratively to review the sources of the current Assistive Technology Laws
Reexamine lists. Edit with new information. Share with class.
After examining IDEA, complete the disability quiz
Discuss Case Study template
Review Module 2's online content.

Module 2 – Online in a Face-to-Face Environment
Assistive Technology devices can be classified as Low/No Tech and High Tech. The determination of which device will best serve a student is determined by the individual student's unique learning styles and in some cases physical or emotional disabilities.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Discuss various types of assistive technology devices that the course participants are familiar with.
Describe specific characteristics of a student in the participant's current class who is having academic difficulty.
Identify and use various components of D2L

Assignment and Instructions:
Participants will read the two postings: Low/No tech and High Tech and explore the links to specific examples.
Use the following D2L components:
Opening/Saving documents
Using e-mail at home
Discussions - adding attachments
Participate in the CHAT after we eat.

Activity: Explore the law's definitions for each disability at: www.nichcy.org.
In the Discussion, assign assistive technology that you are aware of to each disability. If you don't have a clue about some areas - see what others in the class have to share. Discuss - ask questions. Use the low/no and high tech links as resources.
Each participant will select a student (please do not identify by real name!) having difficulty in the classroom. Complete the Case Study template, save to your desktop as "your last name".doc. Submit completed study to the DROP BOX. Complete reflection questions.

Module 3 - Face-to-Face

Software that adds an auditory component to text has a wide variety uses. During this module, participants will work in groups to explore various programs used in Queen Anne's County Public Schools.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Revise case studies with the assistance of fellow group members.
Post an evaluation of one brand of text-to-voice software into the course's drop box.

Assignment and Instructions:
Review last week's online Module. Address any concerns.
Breaking into collaborative groups, participants share with their peers the case studies they wrote in the last learning module.
Compare/contrast digital access to written text (saved & scanned) and Internet
- ReadPlease
- E-Reader
- IntelliTalk II
- Kurzweil
- Reading Pen

Members of each group will work cooperatively as they complete an evaluation.
These evaluation forms will be placed in the DROPBOX for next week's online module.
Complete Reflection Questions.

Module 4 - Online

Participants will compare and contrast text-to-voice software within each group and explore its practical applications in a case study.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Review the three programs examined during Module 3 and identify the "best" to use in their specific educational setting.
Use text-to-voice software to access an online article.
Discuss educational benefits and challenges to Universal Design in Learning.

Assignment and Instructions:
Review the posted reviews of Module 3's text-to-voice software.
Discuss the software that you would like to use in your classroom.
Download the free copy of ReadPlease. Use the software to have the Universal Design article read to you digitally.
Discuss what it was like using this software.
Discuss your initial reaction to the article.
Each participant will examine the attached Case Study and offer instructional suggestions, including accommodations and modifications in the general discussion forum. One member of each group should post a Summary.
Complete Reflection questions.

Module 5 - Face-to-Face
Learners will receive hands-on experiences using assistive technology applications that are designed to provide assistance to students who are having trouble with the writing process.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Explore the impact of UDL and Section 508 on Maryland Schools.
Discuss the various features of four different programs designed to assist students with difficulties with the writing process.

Assignment and Instructions
Concerns/problems during the last Module are discussed.
After watching a video on Maryland's interpretation of Section 508, discuss positive and negative aspects of UDL and 508 in Maryland schools
Groups will work cooperatively to evaluate each of the popular software applications:
- Co:Writer
- Writing with Symbols 2000
- Dragon Naturally Speaking
- Inspiration
- Clicker 4

Complete reflection questions

Module 6 - Online
Participants will work cooperatively on-line to discuss various types of assistive technology reviewed to address needs in the areas of reading and written language.

Goals and Objectives:
As a result of participating in this module, students will be able to:
React to an article written by a dyslexic writer.

React to the challenge of addressing a student's instructional needs in the various content areas when basic skills have not been fully developed.

Assignment and Instructions:
Discuss the article: The Effect of Computers on the Writing Process of a Dyslexic Writer
React to the following statement:
At some point, the school must realize that a student will NEVER be a proficient reader and change the emphasis from reading skills to content that is accessible.
DISCUSS - Using online sites, identify a type of assistive technology that addresses reading or writing that we have not explored. Prepare to share during Module 7.
Discuss case studies. One participant from each group will summarize.
For next week: bring a sample of Assistive Technology used in math.
Complete the survey.

Module 7 - Face-to-Face
Learners will receive hands-on experiences using assistive technology applications that are designed to provide assistance to students who are having trouble with mathematics.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Identify and share additional resources to address disabilities in reading and/or written language.
Identify and share the various uses of assistive technology to address the specific needs of Students' with learning disabilities in the area of mathematics.

Assignment and Instructions:
Working in pairs, students will create PowerPoint presentations that share information found online that addresses disabilities in reading or written language.
Participants will share math devices/techniques used in their schools to address students who are struggling in math.
Using the Tools for Life and the AT Online Project websites, participants will work in groups to develop PowerPoint presentations to share with the class the highlights a specific assistive technology device the addresses some type of mathematics.
Each group will summarize their recommendations for the posted case studies.
Complete reflection questions.

Module 8 - Online
Participants will demonstrate proficiency of their knowledge of assistive technology, after reading the Reed/Lahm article.

Goals and Objectives:
As a result of participating in this module, students will be able to:

Successfully complete (with a score of 100%) a quiz based on A Resource Guide for Teachers and Administrators about Assistive Technology.
Based on current knowledge of educational practices and assistive technology, suggest accommodations and modifications to address posted case studies.
Assignment and Instructions:
Each participant will read A Resource Guide for Teachers and Administrators about Assistive Technology.
Continue to take the quiz until a score of 100% is obtained.
Discuss case studies. One participant from each group will summarize
Complete the reflection questions

Module 9 - Face-to-Face
Participants will examine the components of the Individualized Educational Plan (IEP) to address the specific needs of their case study.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Identify the components of Present Levels of Performance.
Develop goals and objectives to address a student's specific needs/strengths
Demonstrate the appropriate use of accommodations and modifications

Assignment and Instructions:
Review the results of the Mid Term assessment
Discuss how Clicker 4 and a Type 2 Learn could be assistive or instructional technology
Explore the uses of the AT Wheel
Develop an IEP for your case study
Complete reflection questions

Module 10 - Online
Participants will discuss assistive technology in non-academic situations while the loss of sensory modalities is explored.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Discuss new insights in regards to the practical applications of assistive technology in non-academic settings.
Share personal feelings if confronted with a stroke that would make the participant non-verbal.
Develop list of commonly used words and phrases that are critically important to the participant.
Assignment and Instructions:
AT SCHOOL (because of the fact that most participants do not have high speed Internet at home), watch the video from the George Lucas Foundation.

Discuss new insights in regards to the practical applications of assistive technology in non-academic settings.
Discuss case studies. A member of each group will summarize.
If you knew you were going to lose one sensory modality - which would you choose: sight, hearing, or speech?
Imagine having a stroke where you loose the ability to speech and most fine motor capabilities. Share your personal feelings in your journal. Include a list of at least 25 words or phrases you would miss the most to communicate wants, needs, and feelings.
To prepare for module 11: explore the introductory web site of the International Society for Augmentative and Alternative Communication (ISAAC).
Complete online case study.

Module 11 - Face-to-Face
This module will provide learners the opportunity to practice with personalized augmentative and alternative communication devices.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Create Picture Communication Symbols (PCS) to express words and phrases that individuals would miss the most to communicate wants, needs, and feelings.
Experiment with various "low" tech AAC devices to use developed PCS.
Use PowerPoint to create a multilevel AAC device.
Discuss the uses of a "High tech" AAC device
Assignment and Instructions:
Participants will discuss their thoughts/emotions when confronted with the stroke scenario of Module 10
Words and phrases from their journals will be listed and categorized into 4 sections
Use Boardmaker to create a list of picture communication symbols (PCS).
Experiment with various "low tech" AAC devices.
Use PowerPoint to create a personal AAC device
Explore the uses of a Vangard AAC device
Discuss SETT article and necessary form.
Complete reflection questions

Module 12 - Online
Participants will explore the SETT process to identify appropriate use(s) of assistive technology to address the specific needs of a student.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Complete the four sections of the SETT evaluation form.

Assignment and Instructions:
Breaking into groups, list possible challenges general and special educators face when having a student who depends on AAC.
Complete an AT referral to bring with you to Module 13.
Read the posted SETT article and complete the attached worksheet.
Attach the completed form to a discussion tread.
In preparation for Module 13, examine the Assistive Technology Template and prepare to discuss possible difficulties to completing your report.
Discuss the case studies. A member of each group will summarize.
Complete reflection questions.

Module 13 - Face-to-Face
The participants will determine the most appropriate assistive technology resources for specific students as well as identify ongoing accessibility issues.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Identify 508 compliant features of Windows XP and the Internet
Review the four components of the SETT process.
Assess and develop a educational diagnostic plan for a student.
Evaluate the results and make recommendations for improving the plan.

Assignment and Instructions:
Explore accessibility features of Windows XP and the Internet
Review the four components of the SETT process.
Brainstorm the uses with and without assistive technology
Share case studies - relate to the SETT model
Examine template for Final Project - discuss
Complete an assistive technology assessment of the student identified at the beginning of the course. Be prepared to share results with class during Module 15.
Complete Reflection questions

Module 14 - Online
During this second to last module, participants will review the difference between accommodations and modifications as they complete their assessment report.

Goals and Objectives:
As a result of participating in this module, students will be able to:
After reading the posted article, discuss the core differences between accommodations and modifications.
Working in groups, take the role of a student as participants discuss strengths and address needs and the potential positive impact of assistive technology

Assignment and Instructions:
Discuss the differences between accommodations and modifications by relating to real student examples.
Complete the assistive technology report.
Complete the assistive technology PowerPoint presentation.
Complete the case studies. One member of each group will summarize.
Complete reflection questions.

Module 15 - Face-to-Face
Participants will share the results of assistive technology as other members offer suggestions.

Goals and Objectives:
As a result of participating in this module, students will be able to:
Complete an assistive technology assessment using the SETT module
Share results of assessment with class
Offer suggestions to other participants that will assist in their evaluations.

Assignment and Instructions:
Share your SETT assessment as your peers offer suggestions. The final report should be in the Drop Box one week from the last class meeting.
Complete the Posttest
Complete reflection questions

APPENDIX C - Hybrid Based Professional Development Course Review Rubric (HPDR)

Hybrid Based Professional Development Course Review Rubric

I. *Course Overview and Introduction:*

The overall design of the course, navigational information, as well as course, instructor and student information are made available to the student at the beginning of the course.

Specific Review Standards:	(Shaded areas must be scored with either 3 or 0) Other criteria list maximum points that can be awarded.	Yes	No	Notes
1.1 Navigational instructions are clear and make the organization of the course easy to understand.	3			
1.2 A course syllabus is available and specifically delineates the online and face-to-face modules estimated time requirements	3			
1.3 The course provides information on how to obtain informational resources and academic support.	3			
1.4 Netiquette expectations with regard to face-to-face discussions and online communication are clarified	2			
1.5 The method of instructional distribution (i.e. face-to-face, online) for each module employs learning activities that are appropriate to its mode of content delivery	2			
1.6Technology requirements, student skills, and if applicable, prerequisite knowledge in the discipline, are clearly stated	1			
1.7 The facilitator provides students with all means of communication and support that are available during the course	1			
1.8 During the introduction class students are requested to introduce themselves to their instructor and their peers.	1			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

II. Maryland Standards

The course is aligned with the various categories of Maryland and national content standards.

Specific Review Standards:	Maximum point requirement for each standard.	Yes	No	Notes
2.1 Meets Maryland Teacher Professional Development Standards (See Appendix A)	3			
2.2 Meets Maryland Teacher Technology Standards (See Appendix B)	3			
2.3 Meets Maryland Content Standards (Attached, when appropriate)	If appropriate 3 if not, N/A			

III. Learning Objectives (COMPETENCIES):

Learning objectives are clearly defined and explained. They assist the learner to focus on learning activities.

Specific Review Standards:	Maximum point requirement for each standard.	Yes	No	Notes
3.1 The learning objectives of the course describe outcomes that are measurable and attainable.	3			
3.2 Course content is current and learning objectives address content mastery as well as critical thinking ability.	3			
3.3 Instructions to student on how to meet the learning objectives are adequate and easy to understand.	2			
3.4 The learning objectives of the course are clearly stated and understandable to the learner.	2			
3..5 There is no redundancy in tasks or activities due to the duel methods of course delivery	2			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

IV. Assessment and Measurement:

Assessment strategies measure effective learning, assess learner progress by reference to stated learning objectives, and are designed as essential to the learning process.

Specific Review Standards:	Maximum point requirement for each standard.	Yes	No	Notes
4.1 The types of assessments selected are consistent with course activities and measure the achievement of stated objectives and learning outcomes.	3			
4.2 The grading policy is easy to understand.	3			
4.3 Assessment and measurement strategies are designed to provide feedback to the learner	2			
4.4 The types of assessments selected are appropriate for the mode of content delivery	2			
4.5 The methods used for submitting assessments are appropriate and ensure the integrity of the student work.	2			
4.6. Learners' are given an opportunity to evaluate content and the instructional design of the different course modules/units.	1			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

V. Learner Interaction and Support:

The effective design of instructor-learner and meaningful learner cooperation is essential to learner motivation, intellectual commitment and personal development. In addition, various means of support are available to all learners

Specific Review Standards:	Maximum point requirement for each standard.	Yes	No	Notes
5.1 The hybrid course design provides a variety of learning activities (i.e. discussions, group work, journals, etc.) to foster instructor-student, content-student, and student-student interaction.	3			
5.2 Clear standards are set for instructor response and availability (turn around time for email, grade posted)	3			
5.3 The overall hybrid design provides a clearly articulated path for student and teacher interaction.	2			
5.4 The course provides information on how to obtain informational resources and academic support.	2			
5.5 Tutorials are available to provide support related to research, writing, technology etc.	1			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

VI. Resources and Materials:

Instructional materials are designed to be sufficiently comprehensive to achieve announced objectives and learning outcomes and are prepared by qualified persons competent in their fields.

Specific Review Standards:	Maximum point requirement for each standard.	Yes	No	Notes
6.1 The course materials have depth in content and are sufficiently comprehensive for the student to learn the subject.	3			
6.2 Resources and materials are readily accessible to and usable by the learners.	2			
6.3 All instructional materials are presented in a format appropriate to the mode of content delivery.	1			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

VII. Course Technology and Instructional Design

To enhance student learning, course technology should enrich instruction and foster learning and interactivity. In addition, the instructional design of the hybrid course should include a user-friendly web-based learning infrastructure.

Specific Review Standards:	Maximum point requirement for each standard.	Yes	No	Notes
7.1 The selection and use of tools and media enhance learner interactivity and guides the student to become a more active learner.	3			
7.2 All technologies required for this course are provided or easily downloadable.	3			
7.3 All course links are operational	3			
7.4 The selection and use of tools and media are compatible with use in a hybrid-learning environment	2			
7.5 The online learning modules are consistent, and compatible in design.	2			
7.6. All online course modules follow design convention for hyperlinks (i.e. Items that are not hyperlinks should not look as though they are).	2			
All online course modules limit the number of fonts/colors on a given page and uses white space appropriately	1			
7.8 The online course component requires no horizontal scrolling	1			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

VIII. (508) COMPLIANCE:

Access to course resources is in accordance with the American with Disabilities Act

Specific Review Standards:	Points Maximum point requirement for each standard.	Yes	No	Notes
8.1 There is evidence of some effort to recognize the importance of ADA requirements	3			
8.2 Web pages provide equivalent alternatives to auditory and visual content.	2			
8.3 Web pages video & audio files have links that are self-describing and meaningful (Alt-Tags).	1			
Comments and Recommendations: The following comments and recommendations of the review team are designed to assist in advancing implementation of the General Standard to the next level or in refining accomplishments. Commendations are encouraged.				

HPDR TOTAL POINTS	

Meets Expectations:
Answered 'Yes' to all 3-point Essential Questions
AND
75 points* (using the content criteria) or 72 points (not including the content criteria)

Does Not Meet Expectations:
Did not answer 'Yes' to all 3-Point Essential Questions
OR
75 points or less* (using the content criteria) or 72 points or less (not including the content criteria)

	Yes	No
Meets expectations:		
Does not meet expectations:		

APPENDIX D - Assistive Technology Content Pre-Test Post-Test (ATCPT)

Assistive Technology Content Pre-Test Post-Test (ATCPT)

As a result of this course, participants will be able to answer the following questions:

1. What do the terms: "any item, piece of equipment, product system" refer to?
    a. Terminology specific to IEP
    b. Terminology specific to Assistive Technology
    c. Terminology specific to Section 508
    d. Terminology specific to Universal Design

2. Which disability is defined as a "developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age 3, that adversely affects a child's educational performance"?
    a. Autism
    b. Speech or language impairment
    c. Traumatic brain injury
    d. Mental retardation

3. Raised line paper and pencil grips could be considered appropriate assistive technology under what circumstances?
    a. Since there is no "technology" associated with either item, they would not qualify.
    b. Only when prescribed by a licensed occupational therapist.
    c. When they are listed in the IEP as an accommodation or modification
    d. When requested by a parent or advocate.

4. AAC refers to:
    a. A communication system
    b. A mobility device
    c. A cognition training program
    d. A text-to-voice reading program

5. Both Windows XP and Macintosh OS X offer accessibility features in the following areas:
    a. Vision and hearing
    b. Vision and mobility
    c. Hearing and mobility
    d. Hearing, vision, and mobility

6. What is the impact of "Section 508" on technology in Maryland schools?
    a. Levels the "playing field" for students without disabilities
    b. Technology accommodations must be supported for incarcerated students
    c. E-text must be bilingual
    d. All technology purchases must consider accessibility

7. A calculator is an example of assistive technology referred to as:
    a. High-tech
    b. Low-tech
    c. No-tech
    d. Alphanumerator

8. The software that guides a computer to read scanned text is called:
    a. Optical Character Recognition
    b. Visual Basic Identification
    c. Digital Text Detection
    d. Scanned Text Identification

9. Research supports the use of word prediction software to address:
    a. Weak vision
    b. Weak spelling
    c. Weak fine motor skills
    d. Weak word finding

10. PCS (Picture Communication Symbols) can assist in the development of:
    a. Gross motor functionality
    b. Reading comprehension
    c. Mathematical computation
    d. Fine motor functionality

11. Accessibility issues in website development include:
    a. the use of colors
    b. Proper URL
    c. total removal of animated objects
    d. Braille compatibility

12. Which is the process used to determine appropriate Assistive Technology to address an individual student's needs?
    a. ISTE
    b. FAPE
    c. QIAT
    d. SETT

13. What is the legal term associated with Assistive Technology in the development of an IEP?
    a. Least restrictive
    b. Inclusion
    c. Consideration
    d. Developmental Delay

14. Describe possible circumstances when a school is required to provide Assistive Technology in the student's home.
    a. Always provided
    b. Depending on cost
    c. When needed for a FAPE
    d. As determined by QIAT

15. Which could be a "No-Tech" AAC device?
    a. PCS
    b. Cheap Talk
    c. Liberator
    d. Pencil grip

16. Universal Design for Learning is:
    a. Accessibility to Assistive Technology at home
    b. Accessibility to Assistive Technology in all classrooms
    c. Accessibility of school-created web sites
    d. Accessibility of curriculum to all students

17. A deterrent to effective implementation of a reading pen to support the inclusion of middle school students with disabilities in general education classes could be:
    a. Gender
    b. Visual planning
    c. Peer pressure
    d. Preferential seating

18. An important component of the SETT process that is often skipped is:
    a. Scheduled follow-up
    b. Financial analysis
    c. Student assessment
    d. Teacher planning

19. Decisions regarding the need for assistive technology devices and services are made based on:
    a. Access to the curriculum and the student's IEP goals
    b. Past modifications to the curriculum
    c. Parental insurance
    d. No Child Left Behind

20. Successful utilization of voice-to-text software requires:
    a. the ability to speak with proper intonation
    b. The ability to identify words in isolation and context
    c. Knowledge of Visual Basics
    d. Keyboard access

APPENDIX E - Assistive Technology Professional Development Course Exit Survey (ATES)

Assistive Technology Professional Development Course Exit Survey

Instructions:
Please answer each of the following questions as carefully as you can, by indicating whether you agree or disagree (and how strongly!) for each of the following statements. Your responses will help determine how technology and the method of course delivery will be used in future sections of this course. Thank You!

Question 1
My experience using Desire2Learn has helped me learn more about Assistive Technology
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 2
My experience using PowerPoint has helped me learn more about Assistive Technology.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 3
I felt that I wasn't at a disadvantage in this course because I didn't understand how to use Desire2Learn as well as the other participants.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 4
I felt that I wasn't at a disadvantage in this course because I didn't understand how to use PowerPoint as well as the other participants.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 5
Overall, I found that I was able to control the pace of my learning more effectively because of the way this course used technology
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 6
The technology used in the course, such as Desire2Learn and Powerpoint was appropriate to my performing the coursework required.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 7
The time I spent using the technology required for this course would have been better spent in the classroom
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 8
I found that I was better able to develop my (specific skill appropriate to the course, such as writing skill, skill in applying the course material to real-life situations, problem-solving skills, or integration of technology skills, etc.) because of the technology used in this course.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 9
I felt that the use of Desire2Learn made me feel less connected with the instructor and with the other students in this course.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 10
Because of the “hybrid” approach taken in this course, I am better able to juggle my course work with other responsibilities (both work and home)
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 11
Overall, I think that it would be a good idea if other courses were developed that use the “hybrid” approach where there is more online learning and less time spent in the classroom.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 12
Because of the integration of technology with learning strategies provided throughout this course I feel better able to infuse some of these content activities into my own classroom.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 13
After completing this course I feel more confident about using Assistive Technology to help students with diverse learning styles found in my classroom.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 14
Overall, I believe this professional development course helped me adapt some of my teaching strategies and activities in order to more effectively reach the diverse student learning styles that are found in my classroom
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

Question 15
Overall, I feel I can help other teachers who may want to try some of the assistive technology devices within their classrooms.
Disagree strongly
Disagree
Neither agree nor disagree
Agree
Agree strongly

This survey is based on the Hybrid Teaching and Learning Survey created by the University of Wisconsin-Milwaukee.

APPENDIX F - End of Learning Module Questions (ELMQ)

End of Learning Module Questions

1. What could your instructor do to help you get more out of this module?

2. What have you learned in this module that you have found particularly interesting or exciting?

3. What in this module is still confusing or unclear and needs more coverage?

4. What should be changed in this module?

5. If possible, how could you integrate what you've learned into your classroom instructional activities?

APPENDIX G - Assistive Technology Professional Development Course Interview Guide (IGQ)

Assistive Technology Professional Development Course
Interview Guide

Purpose of the Interview:
My name is Diane Larrimore, and I am a doctoral student at Towson University. I am conducting a research study to determine if a hybrid-based professional development course is a viable instructional environment for K12 practicing teachers. If you at anytime have questions about the process please feel free to call me at 410-758-2403, or email me larrimod@qacps.k12.md.us

Selection Process and Time Commitment:
Since you are a certificated teacher in a K12 public school district, enrolled in an Assistive Technology Course that is using the hybrid-based learning instructional approach, and you have successfully completed the course, I would like to spend an hour with you and ask you some questions that will give me a deeper insight into your own personal experiences and reactions to learning through a hybrid-based instructional model.

Format of the Interview:
The interview will be conducted three weeks after the course has been completed. I will come to your school an tape record the interview to try to make sure that I have an accurate record of your views and experiences. I will also be writing a few notes, just in case the tape is damaged. I will be asking you 25 standardized open-ended questions. An open-ended question is defined as a question that does not have to be answered in a specific format, such as year or numeric ratings. If you are confused about a question, please feel free to ask for a clarification.

Confidentiality:
I will share the comments that are made by all interviewees with the class instructor. However, there will be no participant names attached to the responses. Individuals will only be identified as "participants in a professional development course delivered through a hybrid-based learning environment." As a participant in the interview process you will be expected to sign the attached consent form.

Interview Questions

Interviewee_____Date_____

Interviewer_____Time Began_____

Timer Ended_____

Background Information:
Before we begin this session, I would like to ask about some demographic information that may help me to understand your responses. This is strictly voluntary

a. What grade do you teach?_____

b. How many years have you been teaching?_____

c. How many years have you been in the local school system?_____

d. What is the highest educational degree that you have earned? _____

e. What area (content, subject) did you receive your degree? _____

f. Have you ever taken an online course before? _____

g. Have you ever taken a course delivered through a hybrid-based learning environment?

Interview Questions:

1. Maybe we can start this interview session by our explanation abut why you decided to take this particular professional development course?

2. Have there been any concerns that you have had during the tenure of this course?

3. Can you explain how you have addressed these concerns?

4. Have these strategies worked?

5. Any other issues?

6. Now that the Assistive Technology Course is completed what was your opinion about the effectiveness of the hybrid instructional design of the course?

7. How instrumental was the Assistive Technology Course's online learning platform Desire2learn n hosting the online learning modules?

8. What is your opinion about the instructional activities conducted through the hybrid-based learning environment?

9. Give specific examples to support your feelings.

10. How effective were the online group discussions in helping you learn subject content?

11. What were you're reactions to some of the discussions contributed by your group members?

12 Did you feel at anytime during the course that you were a part of a community or that you were learning on your own?

13. Overall, do you feel the course design of this hybrid professional development course provided an effective support infrastructure?

14. What was your opinion about the support provided by the course instructor?

15. Have you applied any course knowledge that you have learned into your classroom teaching practices?

16. Can you give specific examples?

17. Have you been able to determine if any of the changes you have made in your instructional strategies were effective in helping your students understand the subject content?

18. What were your students' reactions to the different teaching strategies?

19. Have you shared with other teachers in your school any of the information that you learned during this course?

20. If so, did they use your recommendations in their classroom instructional practices?

21. How would you describe the hybrid-based learning experience to other teachers?

22. Overall, would you recommend the Assistive Technology Professional Development Course to other teachers?

23. If you have, what were their reactions to your recommendation?

24. Would you enroll in another professional development course that utilized the hybrid-based course delivery method?

25. Any other comments or experiences about this course you would like to share?

Post – Interview Comments (e.g. was participant comfortable, neutral, excitable, etc.)

Concluding question - If you don't mind answering, what has been your impression of this interview process?

Other comments (problems, changes)

APPENDIX H - Master Content Code (MCC)

Master Content Code

Question	Format	Categories	Themes	Code Abbreviation
(Q1) - Exemplifies Characteristics of High Quality Hybrid Learning Environment	(I) Interview	(CO) Course Overview & Introduction	Navigation Desire2Learn	*Q1ICON-1.1*
			Syllabus	*Q1ICOS-1.2*
			Obtaining informational resources & academic support	*Q11ICORA-1.3*
			Etiquette expectations	*Q11ICOE-1.4*
			Learning activities appropriate for mode of instruction.	*Q1ICOLA-1.5*
			Technology requirements are stated	*Q11ICOT-1.6*
			Facilitator provides means of comm. & support	*Q11ICOF-1.7*
			Introduction of students	*Q11ICOI-1.8*
		(S) Standards	Meets MD Professional Development Standards	*Q11SPD-2.1*
			Meets MD Tech Standards	*Q1IST-2.2*
			Meets Content Standards	*Q1ISC-2.3*
		(O) Objectives	Outcomes are measurable & Obtainable	*Q1IOO-3.1*
			Content is current & objectives address mastery	*Q1IOCM-3.2*
			Instructions are adequate for students	*Q1IOIS-3.3*
			The learning objectives are clearly stated & understandable to the learner.	*Q1IOCS-3.4*
			No redundancy in tasks	*Q1IOR-3.5*
		(AM) Assessment & Measurement	The types of assessments selected are consistent with course activities & measure the achievement of stated objectives & learning outcomes.	*Q1IAMC-4.1*
			The grading policy is easy to understand.	*Q1IAMGP-4.2*
			Assessment and measurement strategies are designed to provide feedback to the learner	*Q1IAMF-4.3*
			The types of assessments selected are appropriate for the mode of content delivery	*Q1IAMCD-4.4*
			The methods used for submitting assessments are appropriate & ensure the integrity of the student work.	*Q1IAMIW-4.5*
			Learners given opportunities to evaluate content & instructional design of different course modules.	*Q1IAMOE-4.6*
		(LIS) Learner Interaction & Support	Hybrid design provides variety of learning activities to foster interaction	*Q11LISHD-5.1*
			Instructor response & availability	*Q1ILISIR-5.2*
			Hybrid design provides clear artic. path for student & teacher interaction	*Q11LISI –5.3*
			Course provides inform. Obtaining information, resources & academic support.	*Q1ILISIR –5.4*
			Tutorials are available to provide support related to research, writing, technology etc	*Q1ILIST-5.5*
		(RM) Resources & Materials	Course materials have depth & comprehension.	*Q11RMD-6.1*
			Materials readily access.	*Q1IRMA-6.2*
			Instructional materials presented in appropriate mode of content delivery.	*Q11RMCD-6.3*

		(CTID) Course Technology & Instructional Design	Use of tools & media enhance learner interactivity & guides active learning	*Q1ICTIDL-7.1*
			Technologies easily downloadable	*Q1ICTIDD-7.2*
			Course links operational	*Q1ICTIDO-7.3*
			Technologies compatible for hybrid learning	*Q1ICTIDC-7.4*
			Modules online are consistent	*Q1ICTIDM-7.5*
			Design convention for hyperlinks	*Q1ICTIDH-7.6*
			Fonts/colors	*Q11CTIDFC-7.7*
			Horizontal scrolling	*Q11CTID-7.8*
		(AD) ADA Compliance	There is evidence of some effort to recognize the importance of ADA requirements	*Q1IADR-8.1*
	(EM) - End of Module Questions	(CON) Course Overview & Introduction	Navigation Desire2Learn	*Q1EMCON-1.1*
			Syllabus	*Q1EMCOS-1.2*
			Obtaining informational resources & academic support	*Q1EMCORA-1.3*
			Etiquette expectations	*Q1EMCOE-1.4*
			Learning activities appropriate for mode of instruction.	*Q1EMCOLA-1.5*
			Technology requirements are stated	*Q1EMCOT-1.6*
			Facilitator provides means of comm. & support	*Q1EMCOF-1.7*
			Introduction of students	*Q1EMCOI-1.8*
		(S) Standards	Meets MD Professional Development Standards	*Q1EMSPD-2.1*
			Meets MD Tech Standards	*Q1EMST-2.2*
			Meets Content Standards	*Q1EMSC-2.3*
		(O) Objectives	Outcomes are measurable & Obtainable	*Q1EMOO-3.1*
			Content is current & objectives address mastery	*Q1EMOCM-3.2*
			Instructions are adequate for students	*Q1EMOIS-3.3*
			The learning objectives are clearly stated and understandable to the learner.	*Q1EMOCS-3.4*
			No redundancy in tasks	*Q1EMOR-3.5*
		(AM) Assessment & Measurement	The types of assessments selected are consistent with course activities & measure the achievement of stated objectives & learning outcomes.	*Q1EMAMC-4.1*
			The grading policy is easy to understand.	*Q1EMAMGP-4.2*
			Assessment & measurement strategies are designed to provide feedback to the learner	*Q1EMAMF-4.3*
			The types of assessments selected are appropriate for the mode of content delivery	*Q1EMAMCD-4.4*
			The methods used for submitting assessments are appropriate & ensure the integrity of the student work.	*Q1EMAMIW-4.5*
			Learners given opportunities to evaluate content & instructional design of different course modules.	*Q1EMAMOE-4.6*
		(LIS) Learner Interaction & Support	Hybrid design provides variety of learning activities to foster interaction	*Q1EMLISHD-5.1*
			Instructor response & availability	*Q1EMLISIR-5.2*
			Hybrid design provides clear artic. path for student & teacher interaction	*Q1EMLISI –5.3*

			Course provides inform. Obtaining information, resources & academic support.	*Q1EMLISR –5.4*
			Tutorials are available to provide support related to research, writing, technology etc.	*Q1EMLIST-5.5*
		(RM) Resources & Materials	Course materials have depth & comprehension.	*Q1EMRMD-6.1*
			Materials readily access.	*Q1EMRMA-6.2*
			Instructional materials presented in appropriate mode of content delivery.	*Q1EMRMCD-6.3*
		(CTID) Course Technology & Instructional Design	Use of tools & media enhance learner interactivity & guides active learning	*Q1EMCTIDL-7.1*
			Technologies easily downloadable	*Q1EMCTIDD-7.2*
			Course links operational	*Q1EMCTIDL-7.3*
			Technologies compatible for hybrid learning	*Q1EMCTIDC-7.4*
			Modules online are consistent	*Q1EMCTIDM-7.5*
			Design convention for hyperlinks	*Q1EMCTIDH-7.6*
			Fonts/colors	*Q1EMCTIDFC-7.7*
			Horizontal scrolling	*Q1EMCTID-7.8*
		(AD) ADA Compliance	There is evidence of some effort to recognize the importance of ADA requirements	*Q1IADR-8.1*
(Q2) Will K-12 teachers develop an increase in understandings of course content after completing a hybrid professional development course.	(I) Interview	(E) Examples	Content for use with students	Q2IEST-1.1
			Content for personal use	Q2IESE-1.2
		(F)Formats	Discussion about Hardware	Q2IFH-2.1
			Discussion about Software	Q2IFS-2.2
			Discussion about Technology	Q2IFT-2.3
		(ID) Instructional Design	Concerns w/process of content internalization	Q2IIDC-3.1
			Assisted w/process of content internalization.	Q2IIDA-3.2
		(F)Facilitator	Concerns w/facilitator & content internalization	Q2IFAC-4.1
			Facilitator assisted w/content Internalization	Q2IFAA-4.2
	(EM) End of Module Questions	(E) Examples	Content for use with students	Q2EMEST-1.1
			Content for personal use	Q2EMESE-1.2
		(F) Formats	Discussion about Hardware	Q2EMFH-2.1
			Discussion about Software	Q2EMFS-2.2
			Discussion about Technology	Q2EMFT-2.3
		(ID) Instructional Design	Concerns w/process of content Internalization	Q2EMIDC-3.1
			Assisted w/process of content Internalization.	Q2EMIDA-3.2
		(F)Facilitator	Concerns w/facilitator & content internalization	Q2EMFAC-4.1
			Facilitator assisted w/content Internalization	Q2EMFAA-4.2
(Q3) How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional	(I) Interview	(T) Transference	Instructional practices	Q3ITIP-1.I
			Personal Use	Q3ITPU-1.2
			Parent Interaction	Q3ITPI-1.3
			Other Teacher Interaction	Q3ITOTI-1.4
		(A)Artifacts	Student Work/Achievement	Q3IASW-2.1
			Teacher Instructional Examples	Q3IATI-2.2
		(R)Reactions	Participant Comments	Q3IRPC-3.1
			Student Comments	Q3IRSC-3.2
			Parent Comments	Q3IRPC-3.3
			Other Teacher Comments	Q3IROT-3.4
	(EM) End	(T)	Instructional practices	Q3EMTIP-1.1

practice?	of Module Questions	Transference	Personal Use	Q3EMTPU-1.2
			Parent Interaction	Q3EMTPI-1.3
			Other Teacher Interaction	Q3EMTOTI-1.4
		(A) Artifacts	Student Work/Achievement	Q3EMASW-2.1
			Teacher Instructional Examples	Q3EMATI-2.2
		(R) Reactions	Participant Comments	Q3EMRPC-3.1
			Student Comments	EMQ3RSC-3.2
			Parent Comments	EMQ3RPC-3.3
			Other Teacher Comments	EMQ3ROT-3.4
Q4 – Through the Interview process, how do research participants evaluate the attributes, benefits and concerns of learning in a hybrid-based educational environment?	(I) Interview	(A)Attributes	Collaboration (Interaction) among Peers	Q4IACP-1.1
			Relevancy of content	Q4IAC-1.2
			Feedback	Q4IAFF-1.3
			Incorporates participants past learning experiences	Q4IALE-1.4
			Practice/Review	Q4IAP-1.5
			Assessment	Q4IAA-1.6
			Support	Q4IAS-1.7
			Safe & respectful caring environment	Q4IASRE-1.8
			Instructional design includes exploration, action and reflection	Q4IAEAR-1.9
			Nurturing self directed learning	Q4IASDL-1.10
			Applicable to participants teaching assignment	Q4IATE-1.11
			Hybrid Design	Q4IAHD-1.12
			Application/Technology	Q4IAA-1.13
		(C) Concerns	Collaboration (Interaction) among Peers	Q4ICCP-2.1
			Relevancy of content	Q4ICC-2.2
			Feedback	Q4ICFF-2.3
			Incorporates participants past learning experiences	Q4ICLE-2.4
			Practice/Review	Q4ICP-2.5
			Assessment	Q4ICA-2.6
			Support/Review	Q4ICS-2.7
			Safe & respectful caring environment	Q4ICSRE-2.8
			Instructional design includes exploration, action and reflection	Q4ICEAR-2.9
			Nurturing self directed learning	Q4ICSDL-2.10
			Applicable to participants teaching assignment	Q4ICTE-2.11
			Hybrid Design	Q4ICHD-2.12
			Application/Technology	Q4ICA-2.13
		(B)Benefits	Collaboration (Interaction) among Peers	Q4IBCP-3.1
			Relevancy of content	Q4IBC-3.2
			Feedback	Q4IBFF-3.3
			Incorporates participants past learning experiences	Q4IBLE-3.4
			Practice/Review	Q4IBP-3.5
			Assessment	Q4IBA-3.6
			Support	Q4IBS-3.7
			Safe & respectful caring environment	Q4IBSRE-3.8
			Instructional design includes exploration, action and reflection	Q4IBEAR-3.9
			Nurturing self directed learning	Q4IBSDL-3.10
			Applicable to participants teaching assignment	Q4IBTE-3.11
			Hybrid Design	Q4IBHD-3.12

			Application/Technology	Q4IBA-3.13
		(R) Recommend-ations	Hybrid Design	Q4IRHD-4.1
			To other teachers	Q4IROT-4.2
			Self, would take another course	Q4IRE-4.3
			Learning Infrastructure (D2L)	Q4IRI-4.4

APPENDIX I Guiding Questions Databases (GQD)

GUIDING QUESTION ONE DATABASE

Guiding Question One Database								
GQRI	Student (P)	MasterContent Code (MCC)	Particpant Comments (PC)	Themes (TH)	Years Teaching (YT)	Regular or Special (R/SP)	Pos/Neg (PNE)	Other Online Course
1	1	IQ1CTID-7.1	It made me try to become more fluent in using the computer and its different features that it has.	Technology Comfort	14	Special	Pos	FALSE
2	1	IQ1CO-1.1	I thought it was very easy to use because it was pretty straight forward how to use it.	Infrastructure	14	Special	Pos	FALSE
3	1	IQ1CO-1.5	I thing sometimes the discussions that we had there it was hard to do a lot of back and forth, just because if you respond one way somebody might not respond needing you to respond back to them.	Discussion problems	14	Special	Neg	FALSE
4	1	IQ1LIS-5.4	Before I was trying to think of an answer or response to their questions, as opposed to staying with the challenges of the program	Discussion problems	14	Special	Neg.	FALSE
5	1	IQ1CO-5.1	It was another way to get away from constant face to face discussions.	Learning activities	14	Special	Pos.	FALSE
6	1	IQ1CO-1.5	Everyone's time is limited, it provided an opportunity that you could just kind of pop on there and see what others were thinking.	Hybrid approp.	14	Special	Pos.	FALSE
7	1	IQ1CTID-7.1	Having more practices with having to respond to him like opening attachments	Tech Comp.	14	Special	Neg.	FALSE
8	1	IQ1O-3.2	I have to be a hands on type of learner, that would have to be more concrete in my mind	Comp. & Practice	14	Special	Neg.	FALSE
9	1	IQ1CTID-7.4	I have to be a hands on type of learner, that would have to be more concrete in my mind	Learning Activities	14	Special	Neg.	FALSE
10	1	IQ1CTID-7.1	The ease of the discussion made me more comfortable	Tech Comp & Discussion	14	Special	Pos.	FALSE
11	1	IQ1LIS-5.4	I like the format that you could easily get into the program to resond to the person, the questions, it was very easy to me.	Discussion Infr.	14	Special	Pos.	FALSE
12	1	IQ1LIS - 5.1	It was probably better that people helped me learn how to do the different things	Support - Group	14	Special	Pos.	FALSE
13	1	IQ1LIS-5.1	It was probably better that people helped me learn how to do the different things	Community	14	Special	Pos.	FALSE
14	1	IQ1O-3.2	It would have been better for me to have more assignments to do the activities even if they were very minimum.	Practice	14	Special	Neg.	FALSE
15	1	IQ1O-3.3	It would have been better if the instructor would do these five assignments then lets see if you can do this.	Facilitator - Instructions	14	Special	Neg.	FALSE
16	1	IQ1LIS-5.2	The instructor is good and patient.	Facilitator - response and availability	14	Special	Pos.	FALSE

GUIDING QUESTION ONE DATABASE

17	1	IQ1CO-1.5	For those who like not having to meet every week or frequently it will be really good for those who are especially better learners	Hybrid approp.	14	Special	Pos.	FALSE
18	1	IQ1CO-1.6	It was kind of frustrating because I didn't realize that initially, so maybe somewhere in the course if it mentioned the bare minimum it would help.	Tech Requirement	14	Special	Neg.	FALSE
19	1	IQ1CO-1.7	Technology provided by course is downloadable	Facilitator - Support	14	Special	Pos.	FALSE
20	2	IQ1CTID-7.3	There were minor glitches, but that could happen in a regular classroom	Tech links	20	Special	Pos.	FALSE
21	2	IQ1CO-1.1	I thought it was easy, I didn’t have any problems with it.	Instrastructure	20	Special	Pos.	FALSE
22	2	IQ1CO-1.7	If I complained to Dave it was something that was generic and everybody was having the same problem then they would fix it.	Facilitator - Tech Support	20	Special	Pos.	FALSE
23	2	IQ1LIS-5.2	If I complained to Dave it was something that was generic and everybody was having the same problem then they would fix it.	Facilitator - Availability	20	Special	Pos.	FALSE
24	2	IQ1RM-6.2	It is where you have to access information on the Internet. It doesn’t make sense to do it another way.	Resource and Materials Ease & access	20	Special	Pos.	FALSE
25	2	IQ1CO-1.5	Discussion groups were okay. We all talked about the fact that you didn’t get all the feedback, but when you got all the feedback it was overwhelming.	Instructional Activity	20	Special	Pos.	FALSE
26	2	IQ1LIS-5.3	When we did an open discussion with everybody it was enormously overwhelming.	Learning Activity and hybridity	20	Special	Neg.	FALSE
27	2	IQ1AM-4.6	When we did an open discussion with everybody it was enormously overwhelming. So if it could be done a different way where you could get the feedback even one of the suggestions made was that even if it was only four your case study.	Eval. Of Discussion Process	20	Special	Neg.	FALSE
28	2	IQ1LIS-5.1	Mostly discussion	Variety of activities	20	Special	Neg.	FALSE
29	2	IQ1RM-6.1	He would send you someplaceand it would have links. I would start looking at the links and that was kind of interesting.	Resource depth in content	20	Special	Pos.	FALSE
30	2	IQ1LIS-5.1	Actually it was kind of nice to have time you don’t have with the staff in your own middle school	Support Group	20	Special	Pos.	FALSE
31	2	IQ1CO-1.5	Hybridity infrastructure allowed you to post and also go off online and discover other things	Appropriate support from hybrid infrastructure	20	Special	Pos.	FALSE
32	2	IQ1RM-6.3	Instructional materials are presented in a format appropriate to the mode of content	Materials appropriate	20	Special	Pos.	FALSE
33	2	IQ1CO-1.7	He was very responsive. I had no problem.	Facilitator Support	20	Special	Pos.	FALSE

GUIDING QUESTION ONE DATABASE

34	2	IQ1CTID-7.1	you have to feel comfortable and feel that you can learn to use.	Tech Comp.	20	Special	Pos.	FALSE
35	2	IQ1CO-1.6	Some teachers don't use the computer except for email and word processing, so they might not be as comfortable	Tech Requirement	20	Special	Pos.	FALSE
36	2	IQ1LIS-5.1	Sometimes it was the guy next to you who could answer and that was fine	Community	20	Special	Pos.	FALSE
37	2	IQ1CO-1.3	Not just for the content but even for the access.	Hybridity approp.	20	Special	Pos.	FALSE
38	2	IQ1CO-1.4	People waited to post, not good for people assigned to summary	Nettiquet	20	Special	Neg.	FALSE
39	2	IQ1O-3.3	People waited until Sunday night to post stuff and frankly Dave did threaten at one point, but he just said please do it.	Facili. Course managemt.	20	Special	Neg.	FALSE
40	2	IQ1AM-4.3	Discussions framework problems receiving feedback	Assess feedback	20	Special	Neg.	FALSE
41	3	IQ1CO-1.1	I like the way it was designed, you know because I have a family and at eleven o'clock at night I could do my class when everybody is in bed and I didn't have to take time away from my family	hybrid infrastructure	18	Regular	Pos.	FALSE
42	3	IQ1CO-1.5	I like the way it was 50/50 like that. I liked the way the class was run.	Hybridity instructional distribution	18	Regular	Pos.	FALSE
43	3	IQ1O-3.2	I could take my time and read and reread it over again.	Practice	18	Regular	Pos.	FALSE
44	3	IQ1CO-1.3	What the instructor gave us to do he had tutorials on the side so if I didn't know how to do something I would go in the tutorials and sometimes I made hardcopies of it.	Tutorials availability	18	Regular	Pos.	FALSE
45	3	IQ1CO-1.7	Still had personal contact with the instructor.	Facilitator Support	18	Regular	Pos.	FALSE
46	3	IQ1LIS-5.3	Somewhat the same as 1.3 but occurs during the course	liked the way it was designed	18	Regular	Pos.	FALSE
47	3	IQ1CO-1.1	You can click the different arrows and go forward or backward.	Tech navigation	18	Regular	Pos.	FALSE
48	3	IQ1LIS-6.3	All instructional materials are presented in a format appropriate to the mode of cotent delivery	Instructional mat. In format	18	Regular	Pos.	FALSE
49	3	IQ1CO-1.5	I liked the activities because we where exposed to different instructional distribution	Types of activities	18	Regular	Pos.	FALSE
50	3	IQ1LIS-5.1	Sharing Communities	Case studies allowed for collaboration	18	Regular	Pos	FALSE
51	3	IQ1LIS-5.1	I had really good group members	Blending of Groups	18	Regular	Pos.	FALSE
52	3	IQ1LIS-5.4	If I tried it at home and it didn't work and then when I came back the next time I had a couple questions.	Instructional Design	18	Regular	Pos.	FALSE
53	3	IQ1LIS-5.2	If I had a couple of questions then Dave could answer them	Facilitator Support	18	Regular	Pos.	FALSE
54	3	IQ1LIS-5.3	The way he paired us up the person he put me next to knew how to do everythng in the computer.	Support, Tech	18	Regular	Pos.	FALSE

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55	3	IQ1CTID-7.1	Like I am a novice, I have my computer at home and use it for emails and papers for school like how to make a chart, I wasnt knowledgeable to do the right click and other stuff.	Tech Comfort	18	Regular	Pos.	FALSE
56	3	IQ1LIS-5.2	Facilitator emailed me frequently. When I had a question I would email him.	Facilitator Support	18	Regular	Pos.	FALSE
57	3	IQ1O-3.3	Facilitator emailed me 2 emails just today to make sure that he knows what I received and he knows what I gave him. He constantly kept contact	Facilitator Instructions	18	Regular	Pos.	FALSE
58	3	IQ1CO-1.3	I 'found the tutorials very helpful	Tutorials available	18	Regular	Pos.	FALSE
59	3	IQ1LIS-5.2	Facilitator was availabe to guide you if you had a question	Facilitator Support	18	Regular	Pos.	FALSE
60	3	IQ1LIS-5.4	I like the way it was setup, I like that there still someone to guide you if you have a question	Hybrid Design	18	Regular	Pos.	FALSE
61	4	IQ1O-3.3	At times it was a little hard to follow and sometimes I didn't really know what was expected so I had to like kind of collaborate with other people to get a definitive answer on what was going on.	Course Management	3	Regular	Neg.	TRUE
62	4	IQ1CO-1.2	But then that ended getting solved as we went through the syllabus, it was much easier to follow	Course Mangement	3	Regular	Pos.	TRUE
63	4	IQ1CO-1.1	Little hard to follow sometimes	Instrastructure Management	3	Regular	Pos.	TRUE
64	4	IQ1LIS-5.4	I like the design, I like a human being to ask questions and it was better than both an online courase and an in-class	Hybridity	3	Regular	Pos.	TRUE
65	4	IQ1CO-1.7	I liked because there is always a reminder that tomorrow to get on.	Fac. Communication	3	Regular	Pos.	TRUE
66	4	IQ1CO-1.1	I didn’t like it at first, but Dave tweaked something so that everytime you click on something there is a new window.	Navigation	3	Regular	Pos.	TRUE
67	4	IQ1CO-1.7	Dave's ability to solve problems helped a lot	Fac. Communication	3	Regular	Pos.	TRUE
68	4	IQ1LIS-5.1	I didn’t find the instructional activities as helpful as other people	Content Problems	3	Regular	Pos.	TRUE
69	4	IQ1AM-4.4	Analyzing people's case studies and discussion boards. It ended up being very helpful	Assessment appropriability	3	Regular	Pos.	TRUE
70	4	IQ1CO-1.5	Some were neat, I wasn’t crazy about discussion, it just was helpful with the final. I did like getting to make the PowerPoint		3	Regular	Neg.	TRUE
71	4	IQ1RM-6.1	I liked making PowerPoint at home	variety of activities	3	Regular	Pos.	TRUE
72	4	IQ1CO-1.7	He made good heterogeneous groups	Facilitator support & Mangement	3	Regular	Pos.	TRUE
73	4	IQ1LIS-5.1	I learned a lot from the speech pathologists in my group	Variety and Support	3	Regular	Pos.	TRUE

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74	4	IQ1CO-1.4	The only time it got really heated was when I said that maybe when they get into high school they need to sotop assitive tech.	Netetiquette	3	Regular	Neg.	TRUE
75	4	IQ1LIS-5.1	A lot of times I thought it was a community	Support	3	Regular	Pos.	TRUE
76	4	IQ1CTID-7.3	There were times when I has some problems	Tech. Links	3	Regular	Neg.	TRUE
77	4	IQ1LIS-5.2	Dave always emailed me within about 5 minutes of me shooting an email to him, so he was on top of it	Facilitator Support	3	Regular	Pos.	TRUE
78	4	IQ1O-3.3	Sometimes directions weren't as clear as would have helped.	Faciliator Instructional	3	Regular	Neg.	TRUE
79	5	IQ1CO-1.5	The knowledge that I came away from or with, plus it was set in a certain amount of time which was good rather than the entire semester.	Hybridity	14	Special	Pos.	FALSE
80	5	IQ1CTID-7.3	There were times that you couldn't get on it but I don’t now if it was because of my computer but overall it was up and running	Tech links	14	Special	Neg.	FALSE
81	5	IQ1CO-1.5	I think the instructional activities were good, if I had more of a class situation than what I did then it would have been more beneficial	Hybridity	14	Special	Pos.	FALSE
82	5	IQ1LIS-5.4	I don’t know if I did enough online discussion because of the time.	hybrid was used only to respond once	14	Special	Neg.	FALSE
83	5	IQ1RM-6.1	Hard to relate in case studies because of age of groups and information was difficult	Content difficulty	14	Special	Neg.	FALSE
84	5	IQ1CTID-7.1	Sometimes it was hard to relate to discussions.	Difficulty becoming active learners	14	Special	Neg.	FALSE
85	5	IQ1LIS-5.1	The longer the course went on the more I felt like part of a community.	Community	14	Special	Pos.	FALSE
86	5	IQ1CTID-7.1	Since the beginning my computer skills have really doubled .	Tech ability	14	Special	Pos.	FALSE
87	5	IQ1CO-1.3	I used the tutorials at the beginning	tutorials	14	Special	Pos.	FALSE
88	5	IQ1CO-1.7	Support was excellent	Facilitator Support	14	Special	Pos.	FALSE
89	5	IQ1LIS-5.2	What you said or tasked a question, I never felt like I had a dumb question, When you have a teacher or a person that will give and you are not afraid to interact or speak.	Facilitator Support	14	Special	Pos.	FALSE
90	5	IQ1CO-1.5	I liked the timeframe	Hybridity	14	Special	Pos.	FALSE
91	6	IQ1CO-1.5	I thought the hybrid design was a good way to take that class because it allowed us individual learning time as well as group reflection and presentation time.	Hybridity	3	Regular	Pos.	FALSE
92	6	IQ1CO-1.1	We needed time to play with and check out how to do certain things like the drop box or the discussion	Navigation	3	Regular	Neg.	FALSE
93	6	IQ1CO-1.7	Instruction in the first class did cover how to use Desire2Learn so overall I thought it was a very easy program to get use to.	Facilitator instruction	3	Regular	Pos.	FALSE

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94	6	IQ1CTID-7.7	Some points would be hard to maneuver because the scroll bars would only let you go so far and its like trying to read a page with only half a window.	Horizontal Scroll	3	Regular	Neg.	FALSE
95	6	IQ1LIS-5.1	I thought all of them were well planned out and I thought that most of them could be applied t any school setting and there were certain program that we talked about which I have applied to the seventh grade Reading	Variety of activities	3	Regular	Pos.	FALSE
96	6	IQ1O-3.3	Because it was a variety of program he did allow us time to actually use the programs	Course Mangement	3	Regular	Pos.	FALSE
97	6	IQ1RM-6.1	Nice to hear things that you havent really thought about in a while	Discussion Activities	3	Regular	Pos.	FALSE
98	6	IQ1LIS-5.1	Id say both Id say the community in our smaller discussion groups, so we kind of knew everybody in our small group We also had our individual pacing we were allowed to do these assignment onour own time.	Community Support	3	Regular	Pos.	FALSE
99	6	IQ1CO-1.5	I liked the balance between the two	Hybridity	3	Regular	Pos.	FALSE
100	6	IQ1LIS-5.2	IF anything went wrong he was very quick to get back on the email to us,	Facilitator Support	3	Regular	Pos.	FALSE
101	6	IQ1CO-1.7	If there were problems with Desire2Learn to let him know immediately.	Facilitator Tech support	3	Regular	Pos.	FALSE
102	6	IQ1CO-1.5	I think a hybrid-learning course is an easier way to take a class for professional training	Hybridity	3	Regular	Pos.	FALSE
103	6	IQ1LIS-5.4	I thought the hybrid design was a good way to take that class because it allowed us individual learning time as well as group reflection and presentation time.	Hybridity	3	Regular	Pos.	FALSE
104	6	IQ1O-3.3	When getting from 1st task to the 2nd. I really feel there was a better way to use the time.	Facilitator Management	3	Regular	Neg.	FALSE
105	7	IQ1RM-6.2	It was offered right here and it was easy for me and it was a convenient time right after school, so it worked	Timeframe, hybridity	10	Regular	Pos.	FALSE
106	7	IQ1CO-1.5	I think the hybrid instruction design was very effective, it was helpful meeting once a week to clarify things easier than just online where you can still communicate bu it was easier when we met face to face.	Hybridity	10	Regular	Pos.	FALSE
107	7	IQ1CTID-7.2	There were a couple things here and there that we werent able to get to when we were supposed to and that was difficult and then we had a whole week to wait before we had to figure all that out but other than that	Tech. Difficulties	10	Regular	Neg	FALSE
108	7	IQ1CO-1.1	Desire2Learn was easy to use	Navigator	10	Regular	Pos.	FALSE

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109	7	IQ1O-3.2	I thought the instructional activities conducted through the hybrid-learning were great. I have never seen some before in all my 10 years	Instructional Activities	10	Regular	Pos.	FALSE
110	7	IQ1CTID-7.2	Everything we did in class was a follow up to the online so then it was easy to get online and get to what we needed	Tech required	10	Regular	Pos.	FALSE
111	7	IQ1RM-6.1	Many examples of materials and activities in the course	Materials & Activities	10	Regular	Pos.	FALSE
112	7	IQ1O-3.2	I think those kinds of things were very helpful. Everything he let us practices.	Practicing, mastery of content	10	Regular	Pos.	FALSE
113	7	IQ1CO-1.5	Now at the end it was confusing when we had everybody on there because I kind of got lost like whose am I looking at now?	Discussion Confusio	10	Regular	Neg.	FALSE
114	7	IQ1LIS-5.4	When it came to mine (casestudy) it was really helpful for me to see it because I got some more suggestions from it.	Discussion Difficulty	10	Regular	Pos.	FALSE
115	7	IQ1LIS-5.1	I felt it was a community, definitely. Because in the classroom for one it was a small group and it was easy to ask questions.	Community	10	Regular	Pos.	FALSE
116	7	IQ1LIS-5.2	Dave is so easy to ask questions and talk to and he doesn’t make you feel like a complete idiot because you don’t get it.	Facilitator Support	10	Regular	Pos.	FALSE
117	7	IQ1CTID-7.1	I am not really big on computers and at the beginning I was very intimidated to take the class but he handled it really well and he never made me feel uncomfortable.	Tech Comfort	10	Regular	Pos.	FALSE
118	7	IQ1CO-1.7	BY the end of it I felt completely 100% better about it, I feel so much more comfortable with the things we worked on.	Faciliator Support	10	Regular	Pos.	FALSE
119	7	IQ1CO-1.5	There is an online portion and you meet together in the classroom and you learn how to communicate when you are not in he classroom.	Hybridity	10	Regular	Pos.	FALSE
120	7	IQ1LIS-5.1	I felt it was a group effort.	Community	10	Regular	Pos.	FALSE
121	7	IQ1RM-6.3	The articles are available and we would have projects or assignment . I would definitely recommend it	Material variety	10	Regular	Pos.	FALSE
122	7	IQ1CTID-7.1	IF I can get through it anyone, because I'm not great with the computer	Tech Comp.	10	Regular	Pos.	FALSE
123	8	IQ1CO-1.5	I liked being able to work online and pullup those articles and read them at my own pace instead of someone lecturing.	Hybridity	16	Regular	Pos.	FALSE
124	8	IQ1O-3.2	I would have liked to have had more review time, just more time to decipher it learned it, just more time to go over the different kinds of assist. tech	Practice	16	Regular	Neg.	FALSE

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125	8	IQ1CTID-7.1	I thought the Desire2learn platform was pretty good. I think it would be much easier to understand if I took another class.	Tech Infrastructure	16	Regular	Pos.	FALSE
126	8	IQ1CTID-7.1	I needed support time to go through the platform	Tech Infrastructure	16	Regular	Pos.	FALSE
127	8	IQ1CTID-7.2	the only thing with my computer the video I couldn't get the video part to come up that's because I have dialed up, that was the only thing that was frustrating me was because it would show a little bit then it would somehow stop.	Tech Difficulties	16	Regular	Neg.	FALSE
128	8	IQ1CTID-7.1	If anything I learn how to do a lot of things that I had just not done, because I had to do a lot of like attachments and sending emails.	Tech abilities	16	Regular	Pos.	FALSE
129	8	IQ1CO-1.1	Unless you look at the dates, what I should pull out first, you said something first, you know when. Sometimes when I would pull it up I wouldn't understand it because I hadnt pulled it up before	Threading difficulties	16	Regular	Neg.	FALSE
130	8	IQ1LIS-5.1	I felt like in our little group it was part of a community.	Community	16	Regular	Pos.	FALSE
131	8	IQ1O-3.3	I think the way Dave made them into small groups was probably a good thing or it would have been crazy	Facilitator course management	16	Regular	Pos.	FALSE
132	8	IQ1LIS-5.2	Dave Rose was awesome every time I call and I know he doesn't always check his phone message but he would always call me back and he will help me and support me.	Facilitator Support	16	Regular	Pos.	FALSE
133	8	IQ1CTID-7.1	Im still not as, but I feel much better now since I have been home I have had more time to spend on the computer.	Tech abilities	16	Regular	Pos.	FALSE
134	8	IQ1CO-1.7	I like taking Dave's classes he makes the stress free he is very helpful, he eases my mind. When I get uptight, he just kind of eases me about it.	Facilitator Support	16	Regular	Pos.	FALSE
135	8	IQ1CO-1.5	I would describe the hybrid learning experience as taking a class that is not drawn out everyday and you can do a lot of it online at home after school, at nightime on the weekends.	Hybridity	16	Regular	Pos.	FALSE
136	8	IQ1CO-1.3	I like the way the assignment were all told, he wrote it all out for you what your assignment were due or what you had to do.	Course Information	16	Regular	Pos.	FALSE
137	8	IQ1CO-1.7	I like the way it would be oh gosh, I liked the way he had it scheduled.	Facilitator Support	16	Regular	Pos.	FALSE
138	8	IQ1RM-6.2	I would like to have more time reviewing and maybe some kind of organization or a hard copy or handout of the different kinds of assisive technology, something that shows all the different stuff that is out there.	Materials readily accessible	16	Regular	Pos.	FALSE

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139	8	IQ1RM-6.3	I need a hard copy of what we read.	presented in a appropriate format.	16	Regular	Pos.	FALSE
140	9	IQ1CO-1.5	I like the idea of having the hybrid course because I only needed to be here and a way from my family one night a week, and the other time I could be at home or I could work online at my leisure	Hybridity	13	Special	Pos.	FALSE
141	9	IQ1LIS-5.1	I also took it because of the other people in my building were taking it.	Community	13	Special	Pos.	FALSE
142	9	IQ1LIS-5.4	We were able to discuss questions, discuss new information face to face with the instructor and colleagues.	hybrid design path	13	Special	Pos	FALSE
143	9	IQ1CO-1.5	I had opportunties to refer back to my notes from class.	Hybridity	13	Special	Pos.	FALSE
144	9	IQ1CO-1.1	I felt like the Desire2learn program was very easy. It was very sort of self taught, but just simplistic enough that I felt comfortable	Infrastructure	13	Special	Pos.	FALSE
145	9	IQ1CTID-7.1	Using Desire2learn I felt comfortable. A couple of times there were glitches but I thought it was very accommodating for us.	Tech ability	13	Special	Pos.	FALSE
146	9	IQ1RM-6.2	I thought we had a very good variety of resources to explore.	Materials	13	Special	Pos.	FALSE
147	9	IQ1LIS-5.1	Colleagues input plus Dave's input on how other people used those systems and programs different ways to tweak it and how we were able to learn while we were learning about that program	Support	13	Special	Pos.	FALSE
148	9	IQ1O-3.4	Sometimes there was enough discussions where someone would add, would give their input and you would need to be able to go back in and say oh I tried that or that was really good.	Redunancy	13	Special	Neg.	FALSE
149	9	IQ1O-3.3	Dave, kept telling us that our discussions needed to be a llittle meatier and lengthier and so on, but everybody got to a point where you could, what else could you say.	Course management	13	Special	Neg.	FALSE
150	9	IQ1O-3.5	We would discuss during class what we were not doing right.	Course management	13	Special	Neg.	FALSE
151	9	IQ1CO-1.2	Something we had forgot to do because we just didn’t need that amount of time each week.	Syllabus	13	Special	Neg.	FALSE
152	9	IQ1O-3.3	we are getting everything completed then what else are we suppose to do. We were confused. Whate else were we suppose to do?	Course management	13	Special	Neg.	FALSE
153	9	IQ1CO-1.5	I didn’t think discussion were effective for that all .	Hybridity problems	13	Special	Neg.	FALSE
154	9	IQ1RM-6.1	Discussion probably helped with subject content	Materials	13	Special	Pos.	FALSE

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155	9	IQ1O-3.2	I think the discussions online which were about a persons case study. I think that was problably the misconception of the whole thing because I believe the intent was to use the concept from the class.	Discussion online	13	Special	Neg.	FALSE
156	9	IQ1RM-6.1	Learning, but to then go and just apply you didn't gain enough information that you could honestly use a lot of or to make it really connect to say that we were really applying what we just learned.	Materials & resource depth of content	13	Special	Neg.	FALSE
157	9	IQ1O-3.2	I think the least effective part of this class, only because people were just not as knowledgeable.	Content	13	Special	Neg.	FALSE
158	9	IQ1LIS-5.1	The discussions I think were very helpful to when Dave reviewed questions that people had that either emailed him after the previous class.	Facilitator response	13	Special	Pos.	FALSE
159	9	IQ1CO-1.7	I think he would get the information from the surveys that he would open up discussion at the beginning for maybe ten or fifteen minutes on this came up.	Facilitator support	13	Special	Pos.	FALSE
160	9	IQ1LIS-5.1	No I felt we were a community. It was a very good group of people.	Community	13	Special	Pos.	FALSE
161	9	IQ1CO-1.7	Dave is great pulling everybody together and making everybody feel comfortable and welcomed	Community, Facilitator	13	Special	Pos.	FALSE
162	9	IQ1RM-6.1	We had a multiple resources available for us to explore and to learn	Variety of resources	13	Special	Pos.	FALSE
163	9	IQ1CO-1.7	Once you get to know him, no, he is always there to help you.	Facilitator	13	Special	Pos.	FALSE
164	9	IQ1CO-1.5	I think the hybrid learning experience is very effective, its less stressful as far as the timeframe	Hybridity	13	Special	Pos.	FALSE
165	9	IQ1CO-1.2	we always had our syllabus online and I could go back and refer to information we learned.	Syllabus	13	Special	Pos.	FALSE
166	9	IQ1RM-6.3	I just enjoyed it much more than textbooks I felt like it wasn't as restrictive and it probably just a sign of the time but it was a little more motivating and engaging than a typical textbook kind of lecture course.	instructional material format	13	Special	Pos.	FALSE
167	11	IQ1LIS-5.1	any concerns, no because we had the face to face and of course my colleagues they were there to talk to if I needed anything	Support	6	Regular	Pos.	TRUE
168	11	IQ1CO-1.5	you had the luxury of doing it from home but you were also interacting with other people in the computer soyou get their input and ideas as well as putting in your own, so I liked both aspects of it.	Hybridity	6	Regular	Pos.	TRUE
169	11	IQ1LIS-5.2	I emailed Dave to let him know he was very good helping out with that	Facilitator Support	6	Regular	Pos.	TRUE

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170	11	IQ1RM-6.3	Dave was very good that if we didn't get online by certain amount he would email us so nice to have an instructor, if we didn't get online Dave sent us an email and say I really need you to do this by this date.	Course Management	6	Regular	Pos.	TRUE
171	11	IQ1LIS-5.1	I think the interaction with my peers was very good	Community	6	Regular	Pos.	TRUE
172	11	IQ1RM-6.2	It was hard reading from my computer, so I would print them out	Resources accessibility	6	Regular	Pos.	TRUE
173	11	IQ1AD-8.1	We talked about the QAC website and its ease to use for a disable person.	ADA	6	Regular	Pos.	TRUE
174	11	IQ1LIS-5.1	I thought I was part of a community	Community	6	Regular	Pos.	TRUE
175	11	IQ1LIS-5.2	I thought the support from the instructor was wonderful; I thought he was very good	Facilitator Support	6	Regular	Pos.	TRUE
176	11	IQ1O-3.3	Dave was always available when we needed him and he was willing to go over things and spend more time on things.	Facilitator Support	6	Regular	Pos.	TRUE
177	11	IQ1LIS-5.4	I like the design; I lke a human being to ask questions and it was better than both an online coure and an inclass. I think hybrid is the way to go.	Hybrid design	6	Regular	Pos.	TRUE
178	11	IQ1CO-1.5	Maybe do the first half of the year instead of the second half.	timeframe	6	Regular	Neg.	TRUE
179	12	IQ1O-3.5	I have had some concerns with some of the assignment	Clear expectations	4	Regular	Neg.	FALSE
180	12	IQ1CO-1.7	I know if I could call Dave, and I could post a message on the board and get an answer.	Facilitator Support	4	Regular	Pos.	FALSE
181	12	IQ1CO-1.3	There were plenty of sources	Course information	4	Regular	Pos.	FALSE
182	12	IQ1CO-1.2	Plus we had a syllabus	Syllabus	4	Regular	Pos.	FALSE
183	12	IQ1O-3.3	It was tough with the limited knowledge to have a good case study discussion, because we didn know what was out there for the students	Facilitator course management	4	Regular	Pos.	FALSE
184	12	IQ1CO-1.5	I thing the hybrid instructional design of the course was good, you werent totally just left out there on your own.	Hybridity	4	Regular	Pos.	FALSE
185	12	IQ1CTID-7.1	I am not very good about motivating myself if I was just out there solo, I don't think I would have gotten as much of it, but since it was hybrid I was able to have motivation.	Interactivity and guidance	4	Regular	Pos.	FALSE
186	12	IQ1CO-1.1	You had to go to a different link everything could come right up and I could open it in separate windows and just look at information and take right from one. Desire2Learn I liked a lot.	Infrastructure	4	Regular	Pos.	FALSE
187	12	IQ1RM-6.1	We were shown video that I was able to use in class.	Materials	4	Regular	Pos.	FALSE

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188	12	IQ1LIS-5.4	We had a lot of the discussions where it was just think about this question. I think that ws the first one that everybody participates in, so the more participation by the group I think the better and the more valid and the more helpful those discussions	Hybridity, content	4	Regular	Pos.	FALSE
189	12	IQ1O-3.4	Two or three people talking about the same thing is a little monotonous.	Redundancy	4	Regular	Neg.	FALSE
190	12	IQ1LIS-5.1	I was able to get a lot of information from my group because they had a lot more teaching and learning experience	Community	4	Regular	Pos.	FALSE
191	12	IQ1LIS-5.1	I think a lot of it was definitely more community than on my own. It was a community discussing and I was taking what I wanted.	Community	4	Regular	Pos.	FALSE
192	12	IQ1CO-1.5	I think the hybrid is what made it a positive and supportive effective infrastructure. If it was just online I don't think the structure would have been there.	Hybridity	4	Regular	Pos.	FALSE
193	12	IQ1CO-1.2	The syllabus was just right there we could just click at a link and see what we were doing next time.	Syllabus	4	Regular	Pos.	FALSE
194	12	IQ1CO-1.3	The structure was there we knew what was going to happen before it actually happened.	Information availability	4	Regular	Pos.	FALSE
195	12	IQ1CO-1.7	Dave is great, you could always email him and if we posted a question to him in the discussions he monitored all the discussion and would get back. I know If I called and I would post a message on the board I would get an answer.	Facilitator Course	4	Regular	Pos.	FALSE
196	1	EMQ1O-3.3	What could your instructor do? Maintain noise level.	M1-Course management	14	Special	Neg.	FALSE
197	2	EMQ1O-3.2	What could your instructor do? More time with the devices	M1-Practice	20	Special	Neg.	FALSE
198	1	EMQ1CO-1.1	What have you learned in this module? How to move on the screen to open different pages	M1-Navigation	14	Special	Neg.	FALSE
199	2	EMQ1CO-1.2	What could your instructor do to help you get more out of this module?We needed the information to complete the course	M1-Syllabus	20	Special	Neg.	FALSE
200	2	EMQ1O-3.5	What could your instructor do to helpyou get more out of this module? We needed the information to complete the course	M1-Objectives are clearly stated	20	Special	Neg.	FALSE
201	2	EMQ1CTID-7.1	What have you learned that you have found interesting? ALT Tab trick	M1-Tech ability	20	Special	Pos.	FALSE

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202	3	EMQ1CO-1.7	What could your instructor do to help you? I need help in interpreting how to interpret my data in the class report.	M1-Facilitator Support	18	Regular	Neg.	FALSE
203	3	EMQ1CO-1.1	What in this module is still confusing or unclear? How to search specific topics	M1-Navigation	18	Regular	Neg.	FALSE
204	3	EMQ1CO-1.6	What in this module is still confusing or unclear? How to search specific topics	M1-Tech requirement	18	Regular	Neg.	FALSE
205	5	EMQ1O-3.1	What have you learned in this module that you have found interesting? The different types of disabilities and that I can take a quiz with no pressure	M1-Objectives measures and attainable	14	Special	Pos.	FALSE
206	3	EMQ1CO-1.1	What have you learned in this module? How to go from one site to another using the alt/tab key.	M1-Navigation	18	Regular	Pos.	FALSE
207	5	EMQ1CTID-7.4	What should be changed in this module? The screen needs to be clearer	M1-Tools and media are compatible with hybrid	14	Special	Neg.	FALSE
208	6	EMQ1RM-6.3	What have you learned in this module that you have found interesting? Threated Discussions	M1-Learning Modes	3	Regular	Pos.	FALSE
209	6	EMQ1AM-4.3	What have you learned in this module that you found interesting? Immediate quiz results	M1-Assess. & Measurement	3	Regular	Pos.	FALSE
210	6	EMQ1CO-1.2	What in this module is still confusing or unclear and needs more coverage? What our projects are and what they entail	M1-Syllabus	3	Regular	Neg.	FALSE
211	6	EMQ1O-3.3	What in this module is still confusing or unclear? What our projects are and what they entail	M1-course management	3	Regular	Neg.	FALSE
212	6	EMQ1CO-1.7	What could your instructor do to help you get more out of this module? It was a good introduction to the course	M1-Facilitator Support	3	Regular	Pos.	FALSE
213	7	EMQ1O-3.3	What could your instructor do to help you get more out of this module? Have a hard time concentrating with the extra talking going on.	M1-Course Management	10	Regular	Neg.	FALSE
214	9	EMQ1CO-1.7	What could your instructor do to help you get more out of this module? It was helpful to have the instructor repeat and demonstrate as necessary.	M1-Faciliator Support	13	Special	Pos.	FALSE
215	12	EMQ1CTID-7.1	How could you integrate what you've learned?	M1-Tech ability	4	Regular	Pos.	FALSE
216	1	EMQ1CO-1.5	What could your instructor do to help you get more out of this module? Not being extremely proficient with computer, I need practice to something with guidance, then independently with opportunities to ask questions.	M2-Hybridity	14	Special	Pos.	FALSE
217	1	EMQ1CTID-7.1	What have you learned in this module? How CHAT works, Emailing attachments, how to open a document to use and save	M2-Tech abilitiy	14	Special	Pos.	FALSE

GUIDING QUESTION ONE DATABASE

218	2	EMQ1LIS-5.4	What in this module is still confusing or unclear? It would be helpful to me to be able to meet with th group in a 121 setting or a small group setting to review what we did the previous week.	M2-More support	20	Special	Neg.	FALSE
219	2	EMQ1LIS-5.1	What have you learned in this module that you have found interesting? Chatting was good	M2-Learning activities	20	Special	Pos.	FALSE
220	1	EMQ1CTID-7.1	How could you integrate what you've learned? Prepare some things at home and send them to my email at school	M2-Integr. Tech ability	14	Special	Pos.	FALSE
221	3	EMQ1CTID-7.1	What could your instructor do to help you? I need more help with sending an attachment	M2-Technology	18	Regular	Neg.	FALSE
222	3	EMQ1CTID-7.1	What have you learned in this module? How to use the internet email from school at home	M2-Technology ability	18	Regular	Pos.	FALSE
223	3	EMQ1CTID-7.1	What in this module is still confusing? Attaching a file to send	M2-Technology abilitiy	18	Regular	Neg.	FALSE
224	4	EMQ1CO-1.7	What could your instructor do to help you? He is very helpful	M2-Facilitator support	3	Regular	Pos.	TRUE
225	4	EMQ1CTID-7.4	What in this module is still confusing? Just the actual implementation of the technology	M2-Tech selection	3	Regular	Neg.	TRUE
226	6	EMQ1CO-1.2	What in this module is still confusing? Our online assignments	M2 - Syllabus	3	Regular	Neg.	FALSE
227	6	EMQ1O-3.5	What in this module is still confusing? Our online assignments	M2- Learning obj. confusion	3	Regular	Neg.	FALSE
228	6	EMQ1O-3.2	What should be changed ? More tech practice	M2-Tech practice	3	Regular	Neg.	FALSE
229	8	EMQ1CO-1.5	What have you learned in this module? How to chat with each other online	M2-Hybridity	16	Regular	Pos.	FALSE
230	8	EMQ1CTID-7.1	What have you learned in this module? How to chat online	M2-Tech ability	16	Regular	Pos.	FALSE
231	9	EMQ1CTID-7.1	What have you learned in this module? How to get information to come up on my PC at home, to learn how to send attachments.	M2-Tech ability	13	Special	Pos.	FALSE
232	9	EMQ1CTID-7.5	What have you learned in this module? How to send attachments and see the same info on my home PC	M2-course design	13	Special	Pos.	FALSE
233	10	EMQ1CO-1.7	What could your instructor do to help you? Dave is highly skilled. I love his pace and his energy	M2- Facilitator support		Regular	Pos.	FALSE
234	10	EMQ1CO-7.1	What have you learned in this module? The process of uploading my case file I found surprisingly easy	M2- Tech ability		Regular	Pos.	FALSE
235	10	EMQ1CO-1.4	What should be changed ? I sometimes have to wait for some members of the group to catch up.	M2- Tech requirements		Regular	Neg.	FALSE
236	10	EMQ1O-3.3	What should be changed ? I sometimes have to wait for some members of the group to catch up.	M2-Course Management		Regular	Neg.	FALSE

GUIDING QUESTION ONE DATABASE

237	11	EMQ1LIS-5.2	What should be changed ? It is important for us to take the time to be shownhow to use and do various things to complete this course.	M2-Facilitator Support	6	Regular	Pos.	TRUE
238	11	EMQ1CO-1.7	What should be changed ? It is important for us to take the time to be shown how to use and do various things to complete this course	M2-Facilitator Directions	6	Regular	Pos.	TRUE
239	12	EMQ1CO-1.3	What have you learned in this module? Great demonstration of chat and discussion	M2-Inform. Resources	4	Regular	Pos.	FALSE
240	12	EMQ1CO-1.5	What have you learned in this module? Chat and discussion	M2-method of Instructional Dist.	4	Regular	Pos.	FALSE
241	1	EMQ1O-3.2	What could your instructor do to help you? Review this info at the next class	M3-More review, practice	14	Special	Neg.	FALSE
242	1	EMQ1CTID-7.1	What in this module is still confusing? Tonights info. Was overwhelming for me. I think because Im not proficient in jumping around to see what I need to do.	M3-Tech prof.	14	Special	Neg.	FALSE
243	1	EMQ1O-3.3	What in this module is still confusing? Tonight info. was overwhelming for me. I think because Im not proficient in jumping around to what I need to do.	M3-Instructions by Facilitator	14	Special	Neg.	FALSE
244	1	EMQ1O-3.2	What should be changed ? It would have been nice if all of the programs we had to review were on each computer. I wasn't able to review Intellitools	M3-Learning Objectives	14	Special	Neg.	FALSE
245	1	EMQ1RM-6.2	What should be changed ? It would have been nice to review all the programs.	M3-Resources readility accessible	14	Special	Neg.	FALSE
246	3	EMQ1O-3.2	What could your instructor do to help you? I would like to be walked through the intellitech because the steps werent clear for the program.	M3-Practice	18	Regular	Neg.	FALSE
247	3	EMQ1O-3.3	What in this module is still confusing? Some of the technology needs to have clearer directions for younger students to understand	M3-Facilitator Instructions	18	Regular	Neg.	FALSE
248	3	EMQ1LIS-5.3	What in this module is still confusing? Some of the technology needs to have clearer directions for younger students to understand	M3-How to obtain information	18	Regular	Neg.	FALSE
249	4	EMQ1O-3.2	What have you learned in this module?	M3-Learning objectives address mastery	3	Regular	Pos.	TRUE
250	5	EMQ1RM-6.2	What could your instructor do to help you? An outline so I can fill in the important details without having to write too much.	M3-Resources are readily accessible to use	14	Special	Neg.	FALSE
251	6	EMQ1O3.2	What have you learned in this module? The ability to listen to Internet text without copying and pasting.	M3-Learning Obj.	3	Regular	Pos.	FALSE
252	6	EMQ1CO-1.3	What in this module is still confusing? I think I would need a tutorial on software	M3-Tutorials	3	Regular	Neg.	FALSE

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253	7	EMQ1CO-1.3	What could your instructor do to help you? A brief description of the assignment would be helpful	M3-Course information	10	Regular	Neg.	FALSE
254	11	EMQ1O-3.2	What could your instructor do to help you? More time with each program to figure out how it works	M3- Instructions	6	Regular	Neg.	TRUE
255	11	EMQ1O-3.3	What could your instructor do to help you? More time with each program to figure out how it works	M3-Facilitator instructions	6	Regular	Neg.	TRUE
256	9	EMQ1O-3.1	What have you learned in this module? I learned the difference between a post and discussion	M3-Learning Obj.	13	Special	Pos.	FALSE
257	9	EMQ1O-3.3	What could your instructor do to help you? Take a few moments to review each of the text-to-voice software before allowing students to experiment.	M3-Facilitator Instruction	13	Special	Neg.	FALSE
258	9	EMQ1O-3.2	What could your instructor do to help you? More time to review each of the text to voice software	M3-practice	13	Special	Neg.	FALSE
259	1	EMQ1O-3.3	What could your instructor do to help you? I should have asked the instructor to repeat the steps for loading ReadPlease	M4-Facilitator Instructions	14	Special	Neg.	FALSE
260	1	EMQ1CTID-7.1	What in this module is still confusing? Loading programs I don't think its hard I just need to learn the steps	M4- Technology Ability	14	Special	Neg.	FALSE
261	1	EMQ1CTID-7.2	What in this module is still confusing? Loading programs I don't think it is hard, I just need to learn the steps.	M4-Loading Tech	14	Special	Neg.	FALSE
262	2	EMQ1O-3.3	What in this module is still confusing? There still seems to be some confusion on using the discussion-virtually no one responded.	M4-Facilitator Directions	20	Special	Neg.	FALSE
263	2	EMQ1O-3.2	What should be changed ? A always time to work with the technology	M4-Facilitator Instruction	20	Special	Neg.	FALSE
264	3	EMQ1O-3.5	What could your instructor do to help you? I felt that I couldn't figure out how to work the intellitalk easily and I am not sure what Kurseil is.	M4-Content confusion	18	Regular	Neg.	FALSE
265	3	EMQ1O-3.2	What in this module is still confusing? I wish we had more time for hands on so we coud learn by visual or tactile	M4-Practice	18	Regular	Neg.	FALSE
266	6	EMQ1CO-1.3	What have you learned in this module? Give us a similar case study that has been completed	M4-Tutorial	3	Regular	Neg.	FALSE
267	6	EMQ1CO-1.7	What in this module is still confusing? Discussion expectations	M4-Facilitator course materials	3	Regular	Neg.	FALSE
268	9	EMQ1O-3.5	What in this module is still confusing? I am unclear on the various read aloud program.	M4-Content confusion	13	Special	Neg.	FALSE
269	10	EMQ1CTID-7.2	What in this module is still confusing? I couldn't download the readplease on my computer at school.The network wont allow it.	M4-Tech difficulties	10	Regular	Neg.	FALSE

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270	10	EMQ1CO-1.5	What should be changed ? I couldn t summarize my groups discussions because as of yesterday at 3:30, members had not posted.	M4 - Methods of instructinal distrub.	10	Regular	Neg.	FALSE
271	1	EMQ1LIS-5.3	What have you learned in this module?I liked having the hands-on experiences of the different AT devices	M5-Hybridity	14	Special	Pos.	FALSE
272	2	EMQ1O-3.2	What could your instructor do to help you? More time with the software.	M5-Practice	20	Special	Neg.	FALSE
273	2	EMQ1O-3.2	What in this module is still confusing? More time to practice	M5-Practice	20	Special	Neg.	FALSE
274	5	EMQ1O-3.3	What have you learned in this module? The instructor gives feedback and answers help questions within a timely manner	M5-Facilitator Support	5	Special	Pos.	FALSE
275	7	EMQ1O-3.2	What should be changed ? I don't really think anything needs to be changed, I like repetition.	M5-Practice	10	Regular	Neg.	FALSE
276	10	EMQ1O-3.2	What could your instructor do to help you? I would love to have more time with some of the software	M5-Practice		Regular	Neg.	FALSE
277	10	EMQ1O-3.2	What should be changed ? More time. This was the best class yet	M5-Practice		Regular	Neg.	FALSE
278	12	EMQ1CTID-7.3	What could your instructor do to help you?	M5-Technology Difficulties	4	Regular	Neg.	FALSE
279	3	EMQ1RM-6.1	What could your instructor do to help you? Very interesting articles with great discussions.	M6-intesting materials	18	Special	Pos.	FALSE
280	4	EMQ1O-3.3	What in this module is still confusing? How the summaries are supposed to work	M6-Facilitator course confusion	3	Regular	Neg.	TRUE
281	6	EMQ1O-3.5	What in this module is still confusing? Teacher interventions of the case studies	M3-Learning Objectives	3	Regular	Neg.	FALSE
282	6	EMQ1O-3.5	What should be changed ? Less discussion-too many to read	M6-Learning Objectives	3	Regular	Neg.	FALSE
283	7	EMQ1LIS-5.1	What have you learned in this module? I found it helpful to communicate with the other classmates.	M6-Community	10	Regular	Pos.	FALSE
284	9	EMQ1RM-6.3	What could your instructor do to help you? It was very helpful to have resources provided for this module	M6-Resources	9	Special	Pos.	FALSE
285	9	EMQ1LIS-5.1	What have you learned in this module? Now that I figured out how to get on discussion, I am excited read opinions and ideas of classmates.	M6-Community	9	Special	Pos.	FALSE
286	11	EMQ1LIS-5.1	What have you learned in this module? It was good to interact with other people in the course and get their opinions on issues	M6-Community	6	Regular	Pos.	TRUE
287	12	EMQ1LIS-5.1	What have you learned in this module? The discussion process is fantastic when people are involved.	M6-Community	4	Regular	Pos.	FALSE

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288	1	EMQ1O-3.2	What in this module is still confusing? I need more practice on making Power Points	M7-Practice	14	Special	Neg.	FALSE
289	1	EMQ1LIS-5.4	What should be changed ? I like working in groups and having hands-on practice	M7-Hybrid design	14	Special	Pos.	FALSE
290	2	EMQ1O-3.2	What could your instructor do to help you? This was enough time tonight	M7-Enough Time	20	Special	Pos.	FALSE
291	2	EMQ1CO-1.3	What should be changed ? We all need to get the software to use	M7-Availablity of Resources	20	Special	Neg.	FALSE
292	3	EMQ1CO-1.3	What could your instructor do to help you? I would like a tutorial of how to make a power point presentaiton	M7-Tutorials	18	Regular	Neg.	FALSE

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293	3	EMQ1CO-1.7	What in this module is still confusing? I still need directions to make my own powerpoint	M7-Directions from Facilitator	18	Regular	Neg.	FALSE
294	6	EMQ1O-3.2	What could your instructor do to help you? Give us more presentation time	M7-Practice time	3	Regular	Neg.	FALSE
295	9	EMQ1O-3.3	What could your instructor do to help you?	M7-Practice	13	Special	Pos.	FALSE
296	9	EMQ1O-3.3	What in this module is still confusing? Next week assignment if I get confused I would email	M7-Facilitator Support	13	Special	Pos.	FALSE
297	1	EMQ1RM-6.2	What have you learned in this module? The article was easy to read and gave a variety of suggestions for Assistive Technology.	M8-Resources accessibility	14	Special	Pos.	FALSE
298	3	EMQ1AM-4.1	What could your instructor do to help you? It was hard to take a quiz to get a hundred because it made me reread parts I didn't understand.	M8-Assessment	18	Regular	Neg.	FALSE
299	6	EMQ1AM-4.4	What could your instructor do to help you? More midterm questions	M8-Assessment	3	Regular	Neg.	FALSE
300	6	EMQ1AM-4.4	What should be changed ?More midterm questions to focus on whats important in AT	M8-Assessment	3	Regular	Neg.	FALSE
301	9	EMQ1AM-4.4	What in this module is still confusing? Question 1 on the quiz	M8-Assessment	3	Special	Neg.	FALSE
302	10	EMQ1AM-4.1	What in this module is still confusing? My ability to pass a test in less than two tries	M8-Assessment		Regular	Neg.	FALSE
303	11	EMQ1AM-4.3	What should be changed ? I would be better if you only had to fix those questionsyou got right instead of going back and retaking the whole test	M8-Assessment	6	Regular	Neg.	TRUE
304	9	EMQ1LIS-5.1	What could your instructor do to help you? Loved the discussions among classmates	M9-Community, Discussions	13	Special	Pos.	FALSE
305	1	EMQ1CTID-7.2	What in this module is still confusing? I had some confusion with downloading the video	M10-Tech downloadable	14	Special	Neg.	FALSE
306	5	EMQ1CO-1.7	What could your instructor do to help you? I could not get the video to play at school. So, a little more instruction if I had encountered these problems.	M10-Instructor Support	14	Special	Neg.	FALSE
307	6	EMQ1CTID-7.2	What in this module is still confusing? Video downloading	M10-Tech download	3	Regular	Neg.	FALSE
308	9	EMQ1O-3.3	What in this module is still confusing? Where is the journal that we are to place our entry	M10-Facilitator Instruction	13	Special	Neg.	FALSE
309	10	EMQ1CTID-7.2	What could your instructor do to help you? I had trouble accessing the video, but Dave brought me a copy.	M10-Tech download		Regular	Neg.	FALSE

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310	10	EMQ1RM-6.1	What should be changed ? I would love for the video to be viewed in class, because the f2f discussion would have been amazing	M10-Materials		Regular	Pos.	FALSE
311	3	EMQ1O-3.3	What could your instructor do to help you? I need more instruction on powerpoint. I need more instruction on powerpoint.	M11-Facilitator instruction	18	Regular	Neg.	FALSE
312	3	EMQ1O-3.3	What in this module is still confusing? How to use power point	M11-Facilitator instructions	18	Regular	Neg.	FALSE
313	9	EMQ1O-3.3	What could your instructor do to help you? Allow us to closely observe the various AT items shared in class.	M11-Course Management	13	Special	Neg.	FALSE
314	12	EMQ1O-3.3	What could your instructor do to help you? Today moved a bit fast.	M11- Course Management	4	Regular	Neg.	FALSE
315	1	EMQ1O-3.3	What could your instructor do to help you? Explain how to thread something	M11- Facilitator Instructions	14	Special	Neg.	FALSE
316	2	EMQ1LIS-5.1	What could your instructor do to help you? Share across groups-maybe just by posting one or two comments from others not the whole thread.	M12- Collaboration	20	Special	Neg.	FALSE
317	3	EMQ1LIS-5.3	What could your instructor do to help you? I wasn't sure about how to fill out the referral form	M12-course information on academics	14	Regular	Neg.	FALSE
318	5	EMQ1O-3.3	What in this module is still confusing? When I use the referral, was this supposed to be a made up child or one that I contact.	M12-Facilitator Instruction	14	Special	Neg.	FALSE
319	7	EMQ1O-3.3	What could your instructor do to help you? What do I do with the SETT forms	M12-Facilitator Instructions	10	Regular	Neg.	FALSE
320	7	EMQ1AM-4.3	What in this module is still confusing? I am not sure I completed the form correctly	M12-Assess. feedback	10	Regular	Neg.	FALSE
321	8	EMQ1O-3.2	What could your instructor do to help you? Spend more time with the SETT framework questions	M12-Instruction, Time	16	Regular	Neg.	FALSE
322	11	EMQ1O-3.3	What in this module is still confusing? The SETT form was a little confusing	M12-Facilitator Instruction	6	Regular	Neg.	TRUE
323	1	EMQ1O-3.2	What in this module is still confusing? Making sure I know how to do the necessary steps for the final project.	M13-Facilitator Instructions	14	Special	Neg.	FALSE
324	2	EMQ1LIS-5.3	What could your instructor do to help you? Give us all those notes regarding the report	M13-Facilitator Instruction	20	Special	Neg.	FALSE
325	2	EMQ1LIS-5.3	What in this module is still confusing? Still a little confused regarding the referral	M13-Academic information	20	Special	Neg.	FALSE
326	2	EMQ1LIS-5.3	What should be changed ? Give us the notes first	M13-Academic Materials	20	Special	Neg.	FALSE

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327	3	EMQ1CO-1.7	What in this module is still confusing? I still need help with powerpoint procedure	M13-Facilitator comm.	18	Regular	Neg.	FALSE
328	4	EMQ1O-3.3	What could your instructor do to help you? A little more explanation of the SETT process	M13-Facilitator instruction	3	Regular	Neg.	TRUE
329	6	EMQ1RM-5.1	What could your instructor do to help you? More tasks, less explanations	M13-Hybridity	14	Special	Neg.	FALSE
330	7	EMQ1CO-1.5	What in this module is still confusing? Internet adaptability	M13-activity distribution	3	Regular	Neg.	FALSE
331	7	EMQ1O-3.2	What should be changed ? More individual tasks	M13-Activies address mastery	3	Regular	Neg.	FALSE
332	7	EMQ1O-3.2	What could your instructor do to help you? I am so confused. Going a little too fast for me	M13-Practice	10	Regular	Neg.	FALSE
333	9	EMQ1O-3.3	What have you learned in this module? Your notes on the SETT process would be beneficial especially before we did the draft from Module 12	M13-Facilitator management	13	Regular	Neg.	FALSE
334	10	EMQ1CO-1.5	What should be changed ? Chunk the topics so that all of the info. does not run together	M13-instructional distribution		Regular	Neg.	FALSE
335	11	EMQ1O-3.1	What could your instructor do to help you? The instructions on how to fill out the SETT process and technology request for could have finished it before class	M13-Outcomes are attainable	6	Regular	Neg.	TRUE
336	11	EMQ1O-3.2	What in this module is still confusing? Just making sure I fill out the forms correctly	M13-Content is current	6	Regular	Neg.	TRUE
337	12	EMQ1CTID-7.2	What could your instructor do to help you? More information regarding accessability of Windows XP and the Internet	M13-Tech. downloads	4	Regular	Neg.	FALSE
338	12	EMQ1CTID-7.2	What should be changed ? More time focused on Accessibility of Internet Explorer and Windows XP	M13-Tech.down	4	Regular	Neg.	FALSE
339	1	EMQ1CO-1.6	What in this module is still confusing? I think it would be helpful at the beginning of the course to tell us what our home computer would need in order to do the class assignments.	M14-Tech requirements	14	Special	Neg.	FALSE
340	3	EMQ1O-3.3	What in this module is still confusing? Im not sure if Im suppose to comment on other groups discussions after I read them. No one else seems to know.	M14-Facilitator Instructions	18	Regular	Neg.	FALSE
341	6	EMQ1O-3.2	What could your instructor do to help you? More time to summarize case studies	M14-More time	3	Regular	Neg.	FALSE
342	6	EMQ1O-3.2	What in this module is still confusing? Case studies	M14-More time	3	Regular	Neg.	FALSE
343	9	EMQ1O-3.1	What in this module is still confusing? Some of the tools are still unclear as to wat their purpose is.	M14-Objectives are attainable	13	Special	Neg.	FALSE
344	11	EMQ1O-3.2	What in this module is still confusing? Some of the questions on the SETT form	M14-Confusion	6	Regular	Neg.	TRUE

GUIDING QUESTION TWO DATABASE

	Guiding Question Two Database							
GQRI	Student (P)	Master Content Code (MCC)	Participant Comments (PC)	Themes (TH)	Years Teaching (YT)	Regular or special (R/SP)	Pos/Neg. (PNE)	Other Online Course (OONC)
1	1	Q2EMFT-2.3	What have you learned in this module? How to move on the screen to open different pages.	M2-Tech	14	Special	Pos.	FALSE
2	6	Q2EMESE-1.2	What have you learned in this module?The different types of AT available	M2-Types	6	Regular	Pos.	FALSE
3	7	Q2EMESE-1.2	What have you learned in this module? The differences between high and low tech	M2-Differences	10	Regular	Pos.	FALSE
4	9	Q2EMFAC-4.1	What could your instructor do to help you? Demonstrate assistive tech., equi p, such as a reading pen, etc.	M2-More Demos of Assist.	13	Special	Neg.	FALSE
5	9	Q2EMFT-2.3	How could you integrate what you've learned? How to send attachments	M2-Tech	13	Special	Pos.	FALSE
6	9	Q2EMESE-1.2	What have you learned in this module? How to get info to come up on my PC at home.	M2-Use at home	13	Special	Pos.	FALSE
7	10	Q2EMFT-2.3	What have you learned in this module?The process of uploading my case file	M2-Tech	10	Regular	Pos.	FALSE
8	11	Q2EMESE-1.2	What have you learned in this module? Learn about things that help children that do not require "electricity"	M2-Types	6	Regular	Pos.	TRUE
9	11	Q2EMESE-1.2	What have you learned in this module? Learned about social stories	M2-Specific types	6	Regular	Pos.	TRUE
10	11	Q2EMESE-1.2	What should be changed ? Take the time to be shown how to use and do various things	M2-Time for Demonstrations	6	Regular	Neg.	TRUE
11	2	Q2EMFT-2.3	What have you learned in this module?ALT Tab trick	M2-Tech	20	Special	Pos.	FALSE
12	3	Q2EMFT-2.3	What have you learned in this module?The alt/tab key	M2-Tech	18	Regular	Pos.	FALSE
13	4	Q2EMESE-1.2	What have you learned in this module? Basically anything can become assist. technology	M2-Types	3	Regular	Pos.	TRUE
14	5	Q2EMESE-1.2	What have you learned in this module?The different types of disabilities	M2-Types	14	Regular	Pos.	FALSE
15	5	Q2EMIDA-3.2	What have you learned in this module? I can take a quiz and there is no pressure to take it	M2-Quiz	14	Regular	Pos.	FALSE
16	6	Q2EMESE-1.2	What have you learned in this module? Definitions of AT & Disabilities	M1-Types	3	Regular	Pos.	FALSE
17	6	Q2EMFT-2.3	What have you learned in this module?Threaded discussions	M1-Tech	3	Regular	Pos.	FALSE
18	6	Q2EMIDA-3.2	What have you learned in this module? Immediate quiz results	M1-Quiz	3	Regular	Pos.	FALSE

GUIDING QUESTION TWO DATABASE

19	6	Q2EMIDC-3.1	What should be changed ?More content coverage	M1-Content	6	Regular	Neg.	FALSE
20	7	Q2EMESE-1.2	What have you learned in this module?Types of AT	M1-Types	10	Regular	Pos.	FALSE
21	8	Q2EMFT-2.3	What have you learned in this module?Replying to each other online	M1-Tech	16	Regular	Pos.	FALSE
22	8	Q2EMESE-1.2	What have you learned in this module? Definitions of Disabilities	M1-Types & Definit.	16	Regular	Pos.	FALSE
23	9	Q2EMFAC-4.1	What could your instructor do to help you? Repeat a demonstration as necessary	M1-More Demonstrat.	13	Special	Neg.	FALSE
24	9	Q2EMFT-2.3	What have you learned in this module? Switch screens, how to use a search engine.	M1-Tech	13	Special	Pos.	FALSE
25	10	Q2EMESE-1.2	What have you learned in this module?Types of assist. tech., types of disabilities	M1-Types	8	Regular	Pos.	FALSE
26	11	Q2EMESE-1.2	What have you learned in this module?Different types of assist. tech devises	M1-Types	6	Regular	Pos.	TRUE
27	12	Q2EMESE-1.2	What have you learned in this module?Definitions of various disabilities	M1-Definitions of Dissab.	4	Regular	Pos.	FALSE
28	12	Q2EMFT-2.3	How could you integrate what you've learned?Searching tips, F5 for refresh, Crl +Alt.	M1-Tech	4	Regular	Pos.	FALSE
29	1	Q2EMFT-2.3	What have you learned in this module?How CHAT works, Emailing attachments, and opening a document to use and save	M1-Tech	14	Special	Pos.	FALSE
30	3	Q2EMFT-2.3	What have you learned in this module?How to use internet email form school at home	M1-Tech	18	Regular	Pos.	FALSE
31	6	Q2EMFAC-4.1	What could your instructor do to help you?More content directed learning	M2-Content	3	Regular	Neg.	FALSE
32	1	Q2EMFAC-4.1	What could your instructor do to help you?Review this info. At the next class	M3-Review of inform.	14	Special	Neg.	FALSE
33	1	Q2EMIDC-3.1	What in this module is still confusing?If I had to do this independently I would need lots of help. Tonights info was overwhelming for me.	M3-Content	14	Special	Neg.	FALSE
34	2	Q2EMFAC-4.1	What could your instructor do to help you? Give us more time with the devices	M3-More Time	20	Special	Neg.	FALSE
35	2	Q2EMFS-2.2	What have you learned in this module? Read Please can send URL	M3-Software	20	Special	Neg.	FALSE
36	3	Q2EMEST-1.1	What have you learned in this module?Provide text to be read to students who have difficulties	M3-Students	18	Regular	Pos.	FALSE
37	5	Q2EMFS-2.2	What have you learned in this module?strengths and weaknesses of the voice to text technology	M3-Software	14	Special	Pos.	FALSE

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38	6	Q2EMFH-2.1	What have you learned in this module? The different features of the text readers	M3-Hardware	3	Regular	Pos.	FALSE
39	6	Q2EMFT-2.3	What have you learned in this module? The ability to listen to Internet text without copying and pasting	M3-Tech	3	Regular	Pos.	FALSE
40	7	Q2EMESE-1.2	What have you learned in this module? I Found programs to be so easy to use .	M3-Ease of Use	10	Regular	Pos.	FALSE
41	9	Q2EMFAC-4.1	What could your instructor do to help you? Review each of the text2voice software before allowing students to experiment. This way we would have a direction for each.	M3-More practice	13	Special	Neg.	FALSE
42	9	Q2EMFH-2.1	What have you learned in this module?Intellitools and the reading pen, and scanner for reading text, I loved theses ideas	M3-Hardware	13	Special	Pos.	FALSE
43	11	Q2EMFAC-4.1	What could your instructor do to help you? We need more time with each program to figure out how it works	M3-More practice, or time	6	Regular	Neg.	TRUE
44	10	Q2EMFS-2.2	What have you learned in this module? All the reading software, is amazing	M3-Software	8	Regular	Pos.	FALSE
45	10	Q2EMFS-2.2	What in this module is still confusing?maybe a brief overview of how to use each software	M3-Software	8	Regular	Neg.	FALSE
46	1	Q2EMFS-2.2	What have you learned in this module? More about ReadPlease	M4-Software	14	Special	Pos.	FALSE
47	2	Q2EMESE-1.2	What have you learned in this module?Universal design for learning was thought provoking	M4-Content	20	Special	Pos.	FALSE
48	3	Q2EMFAC-4.1	What could your instructor do to help you?Couldn't figure out how to work the intellitalk easily and I am not sure about Kurseil is.	M4-Software concerns	18	Regular	Neg.	FALSE
49	3	Q2EMFS-2.2	What have you learned in this module?I found that the readplease2003 was a useful tool	M4-Software	18	Regular	Pos.	FALSE
50	3	Q2EMFS-2.2	What in this module is still confusing? Intellitalk and Kurseil	M4-Software concerns	18	Regular	Neg.	FALSE
51	3	Q2EMIDC-3.1	What should be changed ? I need written instructions for operation of technology	M4-Written Instruction	18	Regular	Neg.	FALSE
52	3	Q2EMIDC-3.1	What should be changed ? I wish we had more time for hands on	M4-Content	18	Regular	Neg.	FALSE
53	4	Q2EMFS-2.2	What have you learned in this module?Please read program is very effective and free	M4-Software	3	Regular	Pos.	TRUE
54	5	Q2EMFS-2.2	What have you learned in this module?How to download free text-to-voice technology to practice at home	M4-Software	3	Regular	Pos.	TRUE
55	7	Q2EMFS-2.2	What have you learned in this module? I found it helpful to have the computer read to me.	M4-Software	10	Regular	Pos.	FALSE
56	8	Q2EMFS-2.2	What have you learned in this module? ReadPlease very interesting	M4-Software	16	Regular	Pos.	FALSE

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57	9	Q2EMESE-1.2	What have you learned in this module? I was happy to finally read a definition distinguishing AT and Mainstreamed curriculum	M4-Content Definitions	13	Special	Pos.	FALSE
58	10	Q2EMIDC-3.1	What in this module is still confusing?I couldn't download the readplease on my computer at school.	M4-Tech problems	8	Regular	Neg.	FALSE
59	11	Q2EMFS-2.2	What have you learned in this module?I liked using the read please	M4-Content	6	Regular	Pos.	TRUE
60	12	Q2EMFS-2.2	What have you learned in this module? It was interesting to use the free text-to-voice software	M4-Software	4	Regular	Pos.	FALSE
61	12	Q2EMESE-1.2	What in this module is still confusing? I need a better understanding of Universal Design	M4-Content Diffic.	4	Regular	Neg.	FALSE
62	7	Q2EMEST-1.1	what have you learned - the interaction about the case studies was great	M12-case studies	10	Regular	Pos.	FALSE
63	7	Q2EMEST-1.1	What have you learned - students really using the AT appropriately (video)	M10-student use of AST	10	Regular	Pos.	FALSE
64	2	Q2EMESE-1.2	What have you lerned - The SETT process seems applicable to many classroom/instruct. Problems	M15-SETT	20	Special	Pos.	FALSE
65	11	Q2EMESE-1.2	What have you learned - interesting to look around the website and see if it is good for people with disabilities	M14-website QA	6	Regular	Pos.	TRUE
66	4	Q2EMESE-1.2	What have you learned - the workings of the SETT process	M14-SETT	3	Regular	Pos.	TRUE
67	9	Q2EMESE-1.2	What have you learned - It was neat to view the QA website	M14-viewing website	13	Special	Pos.	FALSE
68	8	Q2EMESE-1.2	What have you learned - infor about the county website	M14-website	16	Regular	Pos.	FALSE
69	6	Q2EMESE-1.2	What have you learned - SETT process and AT referral	M14-SETT	3	Regular	Pos.	FALSE
70	12	Q2EMESE-1.2	What have you learned - Assistive Technology Assessment	M13-AT Assess.	4	Regular	Pos.	FALSE
71	11	Q2EMESE-1.2	What in this module is still confusing - Must making sure I fill out the forms correctly	M13-Conf. Forms	6	Regular	Neg..	TRUE
72	3	Q2EMESE-1.2	What have you learned - I enjoyed the SETT article, I liked the way it was organized	M15-SETT	16	Regular	Pos.	FALSE
73	5	Q2EMESE-1.2	What in this modue is still confusing - When I use the referral,	M15-Refferal process	14	Special	Neg.	FALSE
74	9	Q2EMESE-1.2	What have youlearned - The ins and outs of the AT assessment	M15-AT Assess.	13	Special	Pos.	FALSE

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75	3	Q2EMESE-1.2	What have you learned - Could change the windows tools like the pointer, space speed of blinking mouse	M13-Techniques	18	Regular	Pos.	FALSE
76	6	Q2EMESE-1.2	What have you learned - suggestions for case study	M12-Case Study	3	Regular	Pos.	FALSE
77	2	Q2EMESE-1.2	What have you learned - the SETT process seems applicable	M12-SETT	20	Special	Pos.	FALSE
78	2	Q2EMESE-1.2	What was confusing - The particular case studies were involved this time	M12-case studies	20	Special	Neg.	FALSE
79	3	Q2EMESE-1.2	What have you learned - I enjoyed the SETT article, I liked the way it was organized	M15-SETT	18	Regular	Pos.	FALSE
80	5	Q2EMESE-1.2	What have you learned - The SETT process	M12-SETT	14	Special	Pos.	FALSE
81	1	Q2EMESE-1.2	What have you learned - the SETT framework	M12-SETT	14	Special	Pos.	FALSE
82	10	Q2EMESE-1.2	What have you learned - I love the AAC devices. Its wonderful how the boardmaker blends so well with devices.	M11-M11-ACC Devices	8	Regular	Pos.	FALSE
83	6	Q2EMESE-1.2	What in this module is still confusing - when/how to use the boardmaker program	M11-how to use	3	Regular	Neg.	FALSE
84	4	Q2EMESE-1.2	What have you learned - I have never used boardmaker before, it was a great system for a non reading student	M11-boardmaker	3	Regular	Pos.	TRUE
85	1	Q2EMESE-1.2	What have you learned - The beginnings of how to use PowerPoint.	M11-powerpoint	14	Special	Pos.	FALSE
86	11	Q2EMESE-1.2	What have you learned - The video showed how assitive tech really helping those who are disabled in their everyday life.	M10-Video	6	Regular	Pos.	TRUE
87	9	Q2EMESE-1.2	What have you learned- The video was a good eye opener on how AT can help the multihandiccapped.	M10-Video	13	Special	Pos.	FALSE
88	6	Q2EMESE-1.2	What have you learned - younger students with disabilities seem harder to accommodate	M10-younger students seem harder to accommodate	3	Regular	Pos.	FALSE
89	4	Q2EMESE-1.2	What have you learned - I really enjoyed the video, it was nice to see how thse strategies can assist AT problems	M10 - video	3	Regular	Pos.	TRUE
90	3	Q2EMESE-1.2	What have you learned - I learned about different devices students use for their disabilities	M10-different devices	18	Regular	Pos.	FALSE
91	1	Q2EMESE-1.2	What have you learned Asking us the question which we would prefer to lose: speech, hearing, or sight. It is good to have questions that really make you think what life would be like.	M10-Content asset.	14	Special	Pos.	FALSE

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92	12	Q2EMESE-1.2	What have you learned - IEP writng process, AT Wheel	M9-IEP	4	Regular	Pos.	FALSE
93	10	Q2EMESE-1.2	What have you learned - IEP forms are terribly complicated	M9-IEP	8	Regular	Pos.	FALSE
94	7	Q2EMESE-1.2	What have you learned - It was helpful completing the IEP, organizing copy and this will be helpful. Now I can relate to them	M9-IEP	10	Regular	Pos.	FALSE
95	6	Q2EMESE-1.2	What is confusing - where to put specific IEP info	M9-IEP	3	Regular	Neg.	FALSE
96	5	Q2EMESE-1.2	What have you learned - More explanation on the IEP process	M9-IEP	14	Special	Neg.	FALSE
97	3	Q2EMESE-1.2	What have you learned - how to complete an IEP form using information from classroom experience	M9-IEP	18	Regular	Pos.	FALSE
98	2	Q2EMESE-1.2	What is confusing - Acc/Mod	M9-accomp. Mod.	20	Special	Neg.	FALSE
99	2	Q2EMESE-1.2	What have you learned - The accommodation, modification discussion	M9-accomp, Mod.	20	Special	Pos.	FALSE
100	10	Q2EMESE-1.2	AT must be considered at every IEP meeting.	M8-AT and IEP	8	Regular	Pos.	FALSE
101	7	Q2EMESE-1.2	What have you learned - I learned a little about the middle school level.	M8-Middle School	10	Regular	Pos.	FALSE
102	4	Q2EMESE-1.2	What is still confusing - the IEP jargon	M8-IEP Jargon	3	Regular	Neg.	TRUE
103	3	Q2EMESE-1.2	Wht have you learned - I like the way it gave ideas on what to do for each situation	M13-Tech	18	Regular	Pos.	FALSE
104	10	Q2EMESE-1.2	What have you learned - the elementary techniques used by different teachers, for reading and learning	M6-Content Use	8	Regular	Pos.	FALSE
105	8	Q2EMESE-1.2	What have you learned - I enjoyed the writing with symbols program I wouldn't have to rely on Spec. Ed to make things for me. Naturally Speaking program was very interesting	M5-Content Use	16	Regular	Pos.	FALSE
106	5	Q2EMIDA-3.2	What have you learned - Playing with and using the different assistive tech. prgrams in class.	M5-Content Use	14	Special	Pos.	FALSE
107	12	Q2EMFH-2.1	Wht have you learned - Boardmaker (PCS) is a great program	M11-hardware	4	Regular	Pos.	FALSE
108	3	Q2EMFH-2.1	Wht have you learned - I like the different board with the pictues & the other tools that helped words	M11-hardware	18	Regular	Pos.	FALSE
109	8	Q2EMFH-2.1	What have you learned - boardmaker/cheaptalk/vanguard2	M10-hardware	16	Regular	Pos.	FALSE
110	5	Q2EMFH-2.1	Wht have you learned - the different speech-generated computers	M10-hardware	14	Special	Pos.	FALSE
111	11	Q2EMFH-2.1	Wht have you learned - the clicker 4 program & looking at the assst. Tech to share for use in math	M7-hardware	6	Regular	Pos.	TRUE
112	8	Q2EMFH-2.1	Wht have you learned - Clicker 4	M7-hardware	16	Regular	Pos.	FALSE

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113	8	Q2EMFS-2.2	What have you learned - enjoyed working on powerpoint	M7-Software	16	Regular	Pos.	FALSE
114	6	Q2EMFH-2.1	What have you learned - clicker 4 and math AT tools	M7-hardware	3	Regular	Pos.	FALSE
115	5	Q2EMFH-2.1	Wht have you learned - Clicker 4	M7-hardware	14	Special	Pos.	FALSE
116	5	Q2EMFS-2.2	Wht have you learned - Power Point presentation	M7-Software	14	Special	Pos.	FALSE
117	5	Q2EMFH-2.1	What have you learned - what options are available on the computer	M13-Hardware	14	Special	Pos.	FALSE
118	8	Q2EMFS-2.2	What is still confusing - how to find the options located on windows xp	M13-Software	16	Regular	Pos.	FALSE
119	8	Q2EMFS-2.2	What should be changed - more directions on locating options on windows xp	M13-Software	16	Regular	Pos.	FALSE
120	2	Q2EMFH-2.1	What have you learned - I liked clicker 4	M7-Hardware	20	Special	Pos.	FALSE
121	2	Q2EMFH-2.1	What have you learned - How to use clicker 4	M6-Hardware	20	Special	Pos.	FALSE
122	1	Q2EMFH-2.1	What have you learned - Clicker 4	M7-Hardware	14	Special	Pos.	FALSE
123	12	Q2EMFS-2.2	Wht have you learned - I loved Dragon Naturally Speaking and would like more exploration time with it	M5-Software	4	Regular	Pos.	FALSE
124	11	Q2EMFS-2.2	What have you learned - I loved learning about the programs, I wish I had access to them	M5-Software	6	Regular	Pos.	TRUE
125	8	Q2EMFS-2.2	What have you learned - Dragon Naturally Speaking/Writing with symbos 2000	M6-Software	16	Regular	Pos.	FALSE
126	9	Q2EMFS-2.2	What have you learned - Practicing with the various AT equip. I may not use the high end of AT with my population it is facinating to know what resources are available	M5-Software	13	Special	Pos.	FALSE
127	7	Q2EMFS-2.2	What have you learned - learning about the Inspiration software. I also liked the writing with symbols, Fun to experiment with the programs	M5-Software	10	Regular	Pos.	FALSE
128	6	Q2EMFS-2.2	What have you learned - voice to text software, the inspiration program	M5-Software	3	Regular	Pos.	FALSE
129	3	Q2EMFS-2.2	Wht have you learned - I didn’t know you could attach a microphone to your computer and the computer types what it heard.	M3-Software	18	Regular	Pos.	FALSE
130	8	Q2EMFS-2.2	What have you learned - boardmaker/cheaptalk,vanguard2	M11-Software	16	Regular	Pos.	FALSE
131	6	Q2EMFS-2.2	What should be changed - more Powerpoint uses, creating a lesson using Powerpoint	M11-Software	3	Regular	Neg.	FALSE
132	6	Q2EMFS-2.2	Wht have you learned - cheaptalk and boardmaker programs	M11-Software	3	Regular	Pos.	FALSE
133	5	Q2EMFS-2.2	What have you learned - The boardmaker program and the power point	M11-Software	14	Special	Pos.	FALSE
134	3	Q2EMFS-2.2	What is still confusing - how to use power point	M11-Software	18	Regular	Pos.	FALSE

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135	2	Q2EMFS-2.2	Wht have you learned - the power point idea.	M14-Software	20	Special	Pos.	FALSE
136	12	Q2EMFS-2.2	What have you learned - Software-clicker, TestTalker, websites, aplusmath.com, funbrain.com, Iknowthat.com	M7-Software	4	Regular	Pos.	FALSE
137	9	Q2EMFS-2.2	Wht could your instructor do - He provided ample time to explore the materials and share info with partners.	M7-Software	13	Special	Pos.	FALSE
138	9	Q2EMFS-2.2	What have you learned - I loved the refresher on powerpoint	M7-Software	13	Special	Pos.	FALSE
139	10	Q2EMFS-2.2	What is still confusing - Math AT	M7-Software	8	Regular	Neg.	FALSE
140	10	Q2EMFS-2.2	What have you learned - The e-books offered on-line.	M7-Software	8	Regular	Pos.	FALSE
141	7	Q2EMFS-2.2	What have you learned - How to do the powerpoint	M7-Software	10	Regular	Pos.	FALSE
142	6	Q2EMFS-2.2	What is still confusing - lightwrighter	M6-Software	3	Regular	Neg.	FALSE
143	4	Q2EMFS-2.2	What have you learned - some very helpful tools for AT, like lightwriter	M7-Software	3	Regular	Pos.	TRUE
144	2	Q2EMFS-2.2	What have you learned - I always like playing with PowerPoint	M11-Software	20	Special	Pos.	FALSE
145	1	Q2EMFS-2.2	What have you learned - how to get into the template for powerpoint	M14-Software	14	Special	Pos.	FALSE
146	6	Q2EMFS-2.2	What have you learned - the ability to change Windows settngs	M13-Software	3	Regular	Pos.	FALSE
147	1	Q2EMFT-2.3	What is still confusing - how to save PowerPoint, need more info at beginning of class about tech needs.	M14-Tech	14	Special	Neg.	FALSE
148	1	Q2EMFT-2.3	What is still confusing - I had some confusion with downloading the video.	M10-Tech	14	Special	Neg.	FALSE
149	5	Q2EMFT-2.3	Wht could your instructor do - make sure that all of the tech. works	M12-Tech	14	Special	Neg.	FALSE
150	6	Q2EMFT-2.3	What is still confusing - video downloading	M10-Tech	3	Regular	Neg.	FALSE
151	3	Q2EMIDC-3.1	Wht is still confusing -Not sure if I will make a good powerpoint presentation. Also Im not suppose to comment after other group discussion after I read them.	M14-confusion with instructional activity	18	Regular	Neg.	FALSE
152	5	Q2EMIDC-3.1	What have you learned - More on the SETT process	M14-Content	14	Special	Pos.	FALSE
153	12	Q2EMIDC-3.1	What should be changed - More time focused on Accessibility of Internet Explorer and Windows XP	M13-Tech access.	4	Regular	Neg.	FALSE
154	12	Q2EMIDC-3.1	What is still confusing - SETT process	M12-confusion with content	4	Regular	Neg.	FALSE
155	10	Q2EMIDC-3.1	What should be changed - Chunk the topics so that all of the info does not run together	M13-instructional design	8	Regular	Neg.	FALSE

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156	9	Q2EMIDC-3.1	What is still confusing - A few of the AT tools mentioned either in class discussion or in summaries are still unclear.	M13-confusion with instructions on Tech	13	Special	Neg.	FALSE
157	6	Q2EMIDC-3.1	What is still confusing - Case Studies	M14-confusion content	3	Regular	Neg.	FALSE
158	11	Q2EMIDC-3.1	What is still confusing - Questions on the SETT form	M14-confusion on content	6	Regular	Neg.	TRUE
159	3	Q2EMIDC-3.1	What is still confusing - infor on how to fill out AT referrals	M15-Content Confusion	18	Regular	Neg.	FALSE
160	6	Q2EMIDC-3.1	What is still confusing - AT referrals	M12-Content Confusion	3	Regular	Neg.	FALSE
161	7	Q2EMIDC-3.1	What could your instructor do - Im not sure where to post the SETT forms	M15-Content Confusion	10	Regular	Neg.	FALSE
162	7	Q2EMIDC-3.1	What is still confusing - If I completed the form correctly	M12-Content Instruction	10	Regular	Neg.	FALSE
163	2	Q2EMIDC-3.1	What is still confusing - confused regarding the referral.	M13-confusion with content	20	Special	Neg.	FALSE
164	6	Q2EMIDC-3.1	What is still confusing - Internet adaptability	M13-confusion with content	3	Regular	Neg.	FALSE
165	6	Q2EMIDC-3.1	What should be changed - More individual tasks	M13-Instructional	3	Regular	Neg.	FALSE
166	10	Q2EMIDC-3.1	What is still confusing - I feel overwhelmed by the process of diagnosing which AT to use	M15-confusion with content	8	Regular	Neg.	FALSE
167	7	Q2EMIDC-3.1	What is still confusing - not sure if I completed the forms correctly.	M15-confusion with content	10	Regular	Neg.	FALSE
168	3	Q2EMIDC-3.1	What is still confusing - need more information on how to fill out AT referral.	M12-more info on content	18	Regular	Neg.	FALSE
169	5	Q2EMIDC-3.1	What is still confusing - When I use the referral	M12-confusion on content	14	Special	Neg.	FALSE
170	6	Q2EMIDC-3.1	What is still confusing - AT referrals	M15-confusion on content	3	Regular	Neg.	FALSE
171	11	Q2EMIDC-3.1	What is still confusing - the SETT form was still a little confusing	M12-confusion with content	6	Regular	Neg.	TRUE
172	12	Q2EMIDC-3.1	What is still confusing - AAC devices	M11-confusion with content	4	Regular	Neg.	FALSE
173	1	Q2EMIDC-3.1	What is still confusing - more than just the basic about PowerPoint	M11-confusion with software	14	Special	Neg.	FALSE

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174	10	Q2EMIDC-3.1	What should be changed in this module - I would love for the video to be viewed in class, the discussion would have been amazing	M10-suggestion	8	Regular	Pos.	FALSE
175	3	Q2EMIDC-3.1	What is still confusing - all the terminology for the various groups and what it means	M10-Content Confusion	18	Regular	Neg.	FALSE
176	11	Q2EMIDC-3.1	What is still confusing - the process of writing an IEP	M9-content confusion	6	Regular	Neg.	TRUE
177	6	Q2EMIDC-3.1	What should be changed in this module - more IEP time	M9-content practice	3	Regular	Neg.	FALSE
178	6	Q2EMIDC-3.1	What have you learned in this module - all the requirements for writing an IEP	M9-Content	3	Regular	Pos.	FALSE
179	4	Q2EMIDC-3.1	What in this module is still confusing - All the IEP jargon	M9-Content confusion	3	Regular	Neg.	TRUE
180	11	Q2EMIDC-3.1	What should be changed in this module - I thought it would be better if you only fixed those questions that you got wrong instead of going back and retaking the whole test.	M8-Content suggestion	6	Regular	Neg.	TRUE
181	10	Q2EMIDC-3.1	What is still confusing - My ability to pass a test in less than two tries	M8-Content Assess.	8	Regular	Neg.	FALSE
182	9	Q2EMIDC-3.1	What is still confusing - Question 1 on the quiz	M8-Content Assess.	13	Special	Neg.	FALSE
183	6	Q2EMIDC-3.1	What should be changed in this module - more midterm questions to focus on whats important in At	M8-Content Assess.	3	Regular	Neg.	FALSE
184	10	Q2EMIDC-3.1	What could your instructor do - more reading comprehension At	M7-Content	8	Regular	Neg.	FALSE
185	1	Q2EMIDC-3.1	What is confusing - I need more practice on making PowerPoints.	M7-Content practice	14	Special	Neg.	FALSE
186	9	Q2EMIDC-3.1	What is still confusing - group discussion when it is time to address AT to make content accessible vs teaching skills. What age is too young, how will the teacher know that the student may never be a reader, writer,ect.	M6-Content Concerns	13	Special	Neg.	FALSE
187	6	Q2EMIDC-3.1	What should be changed - Less discussion - too many to read	M6-Content Concerns	3	Regular	Neg.	FALSE
188	4	Q2EMIDC-3.1	What is still confusing - How the summaries are supposed to work	M6-Content Concerns	3	Regular	Neg.	TRUE
189	12	Q2EMIDC-3.1	What is still confusing - Aspects of UDL and section 508	M5-Content Concerns	4	Regular	Neg.	FALSE

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190	7	Q2EMIDC-3.1	What should be changed in this module - I don't really think anything needs to be changed but if I had the opportunity I would like another night to go over everything. I like repetition	M5-Content Concerns	10	Regular	Pos.	FALSE
191	6	Q2EMIDC-3.1	What is still confusing - writing with symbols - when to use it with children	M5-Content Concerns	3	Regular	Neg.	FALSE
192	5	Q2EMIDC-3.1	What is still confusing - writing with symbols or dragon naturally speaking, I will not remember how to use them.	M5-Content Concerns	14	Special	Neg.	FALSE
193	3	Q2EMIDC-3.1	What is still confusing - how to use the microphone for text reader in class	M5-Content Concerns	18	Regular	Neg.	FALSE
194	2	Q2EMIDC-3.1	What should be changed - cover fewer programs	M5-Content Suggestion	20	Special	Neg.	FALSE
195	12	Q2EMIDC-3.1	What have you learned - SETT	M5-Content Concerns	4	Regular	Pos.	FALSE
196	1	Q2EMIDA-3.2	What have you learned - The SETT framework	M15-Content Asset	14	Special	Pos.	FALSE
197	6	Q2EMIDA-3.2	What have you learned - Suggestions for case study	M15-Content Asset	3	Regular	Pos.	FALSE
198	5	Q2EMIDA-3.2	What have you learned - The SETT process	M12-Content Asset	14	Special	Pos.	FALSE
199	4	Q2EMIDA-3.2	What have you learned - How the process of how an AT request works	M13-Content Asset	3	Regular	Pos.	TRUE
200	3	Q2EMIDC-3.1	What is still confusing - I still need help with power point procedures	M13-Content Asset	18	Regular	Neg.	FALSE
201	7	Q2EMIDA-3.2	What have you learned - How to complete the referral	M13-Content Asset	10	Regular	Pos.	FALSE
202	9	Q2EMIDA-3.2	What have you learned - How the SETT process works	M13-Content Asset	13	Special	Pos.	FALSE
203	9	Q2EMIDC-3.1	What is still confusing - How to write an AT report	M13-Content Concerns	13	Special	Neg.	FALSE
204	12	Q2EMIDA-3.2	What have you learned - The intro to the SETT process	M12-Content Asset	4	Regular	Pos.	FALSE
205	12	Q2EMIDC-3.1	What is still confusing - I did not think the AT request form was easy	M12-Content Concerns	4	Regular	Neg.	FALSE

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206	2	Q2EMIDA-3.2	Wht have you learned - The accessibility features	M13-Content Asset	20	Special	Pos.	FALSE
207	9	Q2EMIDA-3.2	What have you learned - Creating a schedule using Board Maker, Creating a slide show	M11-Content Asset	13	Special	Pos.	FALSE
208	12	Q2EMIDA-3.2	What have you learned - getting the link for the video. Having a chance to see the things we use in class being used in the real world	M10-Content Asset	4	Regular	Pos.	FALSE
209	3	Q2EMIDA-3.2	What could your instructor do - I enjoyed the movie.	M10-Content Asset	18	Regular	Pos.	FALSE
210	2	Q2EMIDA-3.2	Wht have you learned - The video was good.	M10-Content Asset	20	Special	Pos.	FALSE
211	2	Q2EMIDC-3.1	More time for real discussion	M10-Content Concerns	20	Special	Neg.	FALSE
212	9	Q2EMIDA-3.2	Wht have you learned - Assistive Technology Consideration wheel.	M9-Content Asset	13	Special	Pos.	FALSE
213	6	Q2EMIDA-3.2	What have you learned - all of the online AT resources	M8-Content Asset	3	Regular	Pos.	FALSE
214	6	Q2EMIDC-3.1	What could your instructor do - more midterm questions	M8-Content Concerns	3	Regular	Neg.	FALSE
215	3	Q2EMIDA-3.2	What could your instructor do - Even though the article was very long, I found the information very useful. To take a quiz to get a hundred because it made me read parts I didn't understand.	M8-Content Asset	18	Regular	Pos.	FALSE
216	3	Q2EMIDC-3.1	What is still confusing - The laws I found to be confusing	M8-Content Concerns	18	Regular	Neg.	FALSE
217	2	Q2EMIDA-3.2	What have you learned - The resource article will be helpful.	M8-Content Asset	20	Special	Pos.	FALSE
218	1	Q2EMIDA-3.2	The article was easy to read and gave a variety of suggestions for assistive technology	M8-Content Asset	14	Special	Pos.	FALSE
219	12	Q2EMIDA-3.2	What have you learned - The discussion process is fantastic	M6-Content Asset	4	Regular	Pos.	FALSE
220	11	Q2EMIDA-3.2	What have you learned - It was good to interact with the other people in the course and get their opinion about issues.	M6-Content Asset	6	Regular	Pos.	TRUE
221	6	Q2EMIDA-3.2	What have you learned - abilities of a dyslexic writer	M6-Content Asset	3	Regular	Pos.	FALSE

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222	5	Q2EMIDA-3.2	What have you learned - the articles and the pieces of different assistive technology	M6-Content Asset	14	Special	Pos.	FALSE
223	4	Q2EMIDA-3.2	What have you learned - Good techniques from my peers that will help with students who have reading	M6-Content Asset	3	Regular	Pos.	TRUE
224	1	Q2EMIDA-3.2	What have you learned? - The content of information/article is typically more informative when it is written by a person with a disabilty/disorder.	M6-Content Asset	14	Special	Pos.	FALSE
225	10	Q2EMIDC-3.1	Wht could your instructor do to help you - I would love to have more time with some of the software.	M5-Content Concern	8	Regular	Neg.	FALSE
226	2	Q2EMIDC-3.1	What in this module is still cofusing - Again time to use the software	M5-Content Concerns	20	Special	Neg.	FALSE
227	1	Q2EMIDA-3.2	What have you learned in this module - I liked having the hands-on experiences of the different AT devices/programs.	M5-Content Asset	14	Special	Pos.	FALSE
228	12	Q2EMIDC-3.1	What could your instructor do - More information regarding accessability of Windows XP and the Internet	M13-Content Concerns	4	Regular	Neg.	FALSE
229	11	Q2EMFAC-4.1	What could your instructor do - The instructions on how to fill out the Sett process and technology request could have been finished before class	M13-Instr. Concern	6	Regular	Neg.	TRUE
230	6	Q2EMFAC-4.1	What could our instructor do - more time to summarize case studies	M13-Instr. Concerns	3	Regular	Neg.	FALSE
231	1	Q2EMFAC-4.1	What could your instructor do - Explain how to thread something.	M12-Instr. Concerns	14	Special	Neg.	FALSE
232	2	Q2EMFAC-4.1	What could your nstructor do - Sharing across groups maybe just by posting one or two comments from others not the whole threasd	M15-Instr. Concerns	20	Special	Neg.	FALSE
233	3	Q2EMFAC-4.1	What could your instructor do - I wasn’t sure about how to fill out the referral form	M12-Instr. Concerns	18	Regular	Neg.	FALSE
	5	Q2EMFAC-4.1	What could your instructor do - Make sure that all of the technology works	M15-Instr. Concerns	14	Special	Neg.	FALSE
	6	Q2EMFAC-4.1	What could your instructor do - more SETT info	M12-Instr. Concerns	3	Regular	Neg.	FALSE
234	8	Q2EMFAC-4.1	What could your instructor do - Spend more time with the SETT framework questions.	M15-Instr. Concerns	3	Regular	Neg.	FALSE
235	9	Q2EMFAC-4.1	What could your instructor do - Provide additional information on appropriate wording/info. For the AT referral	M15-Instr. Concerns	16	Special	Neg.	FALSE

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236	2	Q2EMFAC-4.1	What could your instructor do- Same as 251	M15-Instr. Concerns	20	Special	Neg.	FALSE
237	2	Q2EMFAC-4.1	What could your instructor do sharing across groups - maybe just be posting one or two comments from others not in the whole thread.	M12-Instr. Concerns	20	Special	Neg.	FALSE
238	3	Q2EMFAC-4.1	What could your instructor do - I wasn't sure about how to fill out the referral form	M15-Instr. Concerns	18	Regular	Neg.	FALSE
239	6	Q2EMFAC-4.1	What could your instructor do - more SETT info	M15-Instr. Concerns	3	Regular	Neg.	FALSE
240	7	Q2EMFAC-4.1	What could your instructor do - I am not too sure what to do with the SETT forms	M12-Instr. Concerns	10	Regular	Neg.	FALSE
241	7	Q2EMFAC-4.1	What could your instructor do Spend more time with the SETT framework questions	M15-Instr. Concerns	10	Regular	Neg.	FALSE
242	9	Q2EMFAC-4.1	What could your instructor do provide additional information on appropriate wording/info. For the AT referral	M12-Instr. Concerns	13	Special	Neg.	FALSE
243	10	Q2EMFAC-4.1	What could your instructor do Im not sure where to post the SETT form	M15-Instr. Concerns	8	Regular	Neg.	FALSE
244	10	Q2EMFAC-4.1	What is still confusing - I feel overwhelmed by the process of diagnosing which AT to use.	M12-Instr. Concerns	8	Regular	Neg.	FALSE
245	2	Q2EMFAC-4.1	What could your instructor do - Give us all those notes regarding the report	M13Instr. Concerns	20	Special	Neg.	FALSE
246	1	Q2EMFAC-4.1	What could your instructor do - Explain how to thread something. Maybe this was reviewed	M15-Instr. Concerns	14	Special	Neg.	FALSE
247	12	Q2EMFAC-4.1	What could your instructor do - Today moved a bit fast	M11-Instr. Concerns	4	Regular	Neg.	FALSE
248	9	Q2EMFAC-4.1	What could your instructor do - Allow us to closely observe the various AT items shared in class	M11-Instr. Concerns	13	Special	Neg.	FALSE
249	6	Q2EMFAC-4.1	What could your instructor do - show us more powerPoint options	M11-Instr. Concerns	3	Regular	Neg.	FALSE
250	3	Q2EMFAC-4.1	What could your instructor do- I need more instruction on power point.	M11-Instr. Concerns	18	Regular	Neg.	FALSE

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251	1	Q2EMFAC-4.1	What could your instructor do - If we are to really understand PowerPoint and all of its abilities	M11-Instr. Concerns	14	Special	Neg.	FALSE
252	9	Q2EMFAC-4.1	What could your instructor do- Where is the journal that we are to place our entry? I will check with one of the students for clarification as well	M10-Instr. Concerns	13	Special	Neg.	FALSE
253	5	Q2EMFAC-4.1	What could your instructor do - I could not get the video to play at school. At home, it played but I could not get sound., a little more instruction if I had encountered these problems.	M10-Instr. Concerns	14	Special	Neg.	FALSE
254	6	Q2EMFAC-4.1	What could your instructor do - more IEP instructions	M9-Instr. Concerns	3	Regular	Neg.	FALSE
255	9	Q2EMFAC-4.1	What could your instructor do - Explain the answer to question 1 on the quiz. Could we also discuss the laws with AT a little further.	M8-Instr. Concerns	13	Special	Neg.	FALSE
256	1	Q2EMFAC-4.1	What could your instructor do - Windows xp and internet explorer - maybe would have been better to do as a group.	M13-Instr. Concerns	14	Special	Neg.	FALSE
257	6	Q2EMFAC-4.1	What could your instructor do- Give us more presentation time	M7-Instr. Concerns	3	Regular	Neg.	FALSE
258	3	Q2EMFAC-4.1	What could your instructor do I still need directions to make my own powerpoint.	M7-Instr. Concerns	18	Regular	Neg.	FALSE
259	3	Q2EMFAC-4.1	What could your instructor do I would like a tutorial of how to make a power point presentation.	M7-Instr. Concerns	18	Regular	Neg.	FALSE
260	2	Q2EMFAC-4.1	What could your instructor do More time with the software. Omore info on dysgraphic as a disordr and the usefullness of any programs in this area.	M5-Instr. Concerns	20	Special	Neg.	FALSE
261	4	Q2EMFAC-4.1	What could your instructor do a little more explanation of the SETT process.	M13-Instr. Concerns	3	Regular	Neg.	TRUE
262	3	Q2EMFAC-4.1	What should be changed - Not so many power point presentations	M13-Instr. Concerns	18	Regular	Neg.	FALSE
263	2	Q2EMFAC-4.1	What should be changed in this module - Give us the notes first	M13-Instr. Concerns	20	Special	Neg.	FALSE
264	2	Q2EMFAC-4.1	What could your instructor do - I hate seeing only my own group threads	M14-Instr. Concerns	20	Special	Neg.	FALSE
265	6	Q2EMFAC-4.1	What could your instructor do - More task, less explanations	M13-Instr. Concerns	3	Regular	Neg.	FALSE
266	7	Q2EMFAC-4.1	What could your instructor do- I am so confused, ging a little too fast for me.	M13-Instr. Concerns	10	Regular	Neg.	FALSE

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267	8	Q2EMFAC-4.1	What could your instructor do - Your notes on the SETT process would be beneficial especially before we did the draft from module 12	M13-Instr. Concerns	16	Regular	Neg.	FALSE
268	9	Q2EMFAC-4.1	What could your instructor do- Pause between topics for members to process info. And ask questions if needed	M13-Instr. Concerns	13	Special	Neg.	FALSE
269	10	Q2EMFAC-4.1	What could your instructor do I'm not sure where to post the SETT form.	M12-Instr. Concerns	8	Regular	Neg.	FALSE
270	5	Q2EMFAA-4.2	What could your instructor do - My instructor has been wonderful	M13-Instr. Asset	14	Special	Pos.	FALSE
271	10	Q2EMFAA-4.2	What could your instructor do I had trouble accessing the video, but Dave brought me a copy.	M10--Instr. Asset	8	Regular	Pos.	FALSE
272	1	Q2EMFAC-4.1	What could your instructor do It probably would make more sense to give example of PLOP, goals, accommodations, prior to having them write draft IEPS.	M9-Instr. Concerns	14	Special	Neg.	FALSE
273	3	Q2EMFAA-4.2	What could your instructor do I felt the step by step process was very useful. I do not think there is anything I could have done.	M9-Instr. Asset	18	Regular	Pos.	FALSE
274	9	Q2EMFAA-4.2	What could your instructor do. It was very helpful to have resources provided for this module. It is enjoyable other articles and references relating to similar topics.	M6-Instr. Asset	13	Special	Pos.	FALSE
275	3	Q2EMFAA-4.2	What could your instructor do We learned how to use different types of tools, best session yet.	M5-Instr. Asset	18	Regular	Pos.	FALSE
276	5	Q2EMFAA-4.2	What could your instructor do Powerpoint slide about SETt on the web so we can access it.	M13-Instr. Asset	14	Special	Pos.	FALSE
277	1	Q2IFT-2.3	It made me become more fluent using the computer and its different features that it has.	Tech.	14	Special	Pos.	FALSE
278	1	Q2IIDC-3.1	I thought it would have been better for me to have more assignment to do the activities even if they were very minimal.	Inst Design Content - Concerns	14	Special	Neg.	FALSE
279	2	Q2IIDC-3.1	So probably having more practices whith having to respond to him like opening attachments.	Inst. Design Concerns	20	Special	Neg.	FALSE
280	2	Q2IIDC-3.1	I have to view it, I have to be a hands on type of learner, that wouldhave to be more concrete in my mind. And doing it over and over again.	Inst. Design Concerns	20	Special	Neg.	FALSE
281	2	Q2IFT-2.3	Learning how to do different things with PowerPoint	Inst. Design Concerns	20	Special	Pos.	FALSE

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282	2	Q2IIDA-3.2	Good how they took the things we discussed during class and tried to provide, see how it connected to my case study.	Inst. Design Asisted	20	Special	Pos.	FALSE
283	2	Q2IFAA-4.2	He would send you someplace and it would have links. And I would start looking at the links and that was kind of interesting	Interent Content and Facilitator	20	Special	Pos.	FALSE
284	2	Q2IIDC-3.1	Discussions were only marginally about software that was presented.	Instruct Design Concerns - Facilitator	20	Special	Neg.	FALSE
285	2	Q2IESE-1.2	I am really into authenticity for all my kids. Augmentative communication, was discussed and if you want communciation then they need to be talking about something they want to talk about.	Content for oneself.	20	Special	Pos.	FALSE
286	2	Q2IEST-1.1	We are starting to look at,... we are really spending much more time looking at it on the IEP at the IEP process level, what is available for assistive tech.	Content for Students.	20	Special	Pos.	FALSE
287	3	Q2IIDA-3.2	I could take my time to read it and reread it over again	Instruct Design Assist.	18	Regular	Pos.	FALSE
288	3	Q2IIDA-3.2	I would go to the tutorials and make hard copies of it so I could refer back to it as I was doing it.	Instruct Design Assist.	18	Regular	Pos.	FALSE
289	3	Q2IIDA-3.2	Modeled the assistive technology, then we did the PowerPoint presentation	Instruct Design Assist.	18	Regular	Pos.	FALSE
290	3	Q2IESE-1.2	I got to share the living books which nobody else knew about either and I got that from my own experience.	Content for oneself.	18	Regular	Pos.	FALSE
291	3	Q2IFS-2.2	A lot of people talked about that Inspiration which I don’t have on my computer right now.	Software	18	Regular	Pos.	FALSE
292	3	Q2IIDC-3.1	I don’t really think we really discussed too much subject content, because we were working on those case studies.	Instruct. Design Concer	18	Regular	Neg.	FALSE
293	3	Q2IIDC-3.1	I took notes the whole time, because I really like it, but I don’t remember. We did the Readplease, theesy reader and the teletalk. These were the three thngs we talked about onlne and in discussions.	Instruct. Design Concer	18	Regular	Pos.	FALSE
294	3	Q2IFAA-4.2	He told use about some of the laws that helps us, and okay this is what you can and can not do. That ws really helpful.	Facilitator Assess.	18	Regular	Pos.	FALSE

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295	3	Q2IIDC-3.1	I wrote down some of the organizations and the groups and some of the abbreviations so you know what you are talking about, you know, you get all those IEPS and all these student with different disabilities, I don't know what half the things means.	Instruct. Design Concern	18	Regular	Pos.	FALSE
296	4	Q2IIDA-3.2	Activities ended up being very helpful when we had to do our final assessment because you could just take a lot of the information people comment on. It was very helpful	Instructional Design. Assist.	3	Regular	Pos.	TRUE
297	4	Q2IFS-2.2	Some them were neat like making the PowerPoint at home	Software	3	Regular	Pos.	TRUE
298	5	Q2IFT-2.3	I used the tutorials especially at the beginning my computer skills have really doubled since I came to QA, so I look to those to help.	Tech.	14	Special	Pos.	FALSE
299	6	Q2IFAA-4.2	I had a problem with the AT video loading on my computer, so I told him that I could not view it and immediately he came back with a CDRom for us to watch.	Facilitator Assess.	3	Regular	Pos.	FALSE
300	7	Q2IFS-2.2	There was the voice to text, he had us actually do it and that was very helpful.	Software	10	Regular	Pos.	FALSE
301	7	Q2IFAA-4.2	And then everything he had us actually do, I cant remember what it was where we made the pictures I was familiar with writing 2000 but he showed us how to do much more that I was able to do before.	Facilitator Assess.	10	Regular	Pos.	FALSE
302	7	Q2IFAA-4.2	Everything he let us practice	Facilitator Assess.	10	Regular	Pos.	FALSE
303	8	Q2IIDC-3.1	More time to decipher it learn it, just more time to go over maybe the different kinds of assistive technology, it was overwhelming to me when you are not using it hands on.	ID Concern	16	Regular	Neg.	FALSE
304	8	Q2IIDA-3.2	I enjoyed being able to get out from my computer and print out the articles myself and read them at my own pace.	ID Asset.	16	Regular	Pos.	FALSE
305	8	Q2IFT-2.3	The video was frustrating because it would show a little then it would somehow would stop and I could not watch it all.	Tech.	16	Regular	Neg.	FALSE
306	8	Q2IESE-1.2	I thought the articles were good, I enjoyed it and I learned a lot from it.	Using for oneself	16	Regular	Pos.	FALSE
307	8	Q2IFT-2.3	IF anything I learned how to do a lot of things that I had just not done, because I had to do a lot of like attachments and sending emails.	Tech.	16	Regular	Pos.	FALSE

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308	8	Q2IESE-1.2	I learned a lot from a couple of the girls	Using for Oneself	16	Regular	Pos.	FALSE
309	8	Q2IEST-1.1	It was interesting to see some of the problems that they were having in middle school or things that their kids are struggling with or how they would go about teaching students with learning disabilities or it was interesting to hear.	Using the Students	16	Regular	Pos.	FALSE
310	8	Q2IIDC-3.1	more time reviewing and some kind of organization or a hardcopy or handout of the different kinds of assistive tech, something that shows all the different software that is out there and how effective is it for this certain kind of kid	ID Concerns	16	Regular	Neg.	FALSE
311	9	Q2IIDA-3.2	I had opportunities to refer back to my notes from class. I was also able to be able to email the instructor to get answers and information as I needed.	ID Asset.	13	Special	Pos.	FALSE
312	9	Q2IIDA-3.2	we were able to learn while we were learning about a program. We were also able to adapt that particular learning to what we are doing so it was more effective.	ID Asset.	13	Special	Pos.	FALSE
313	9	Q2IIDA-3.2	It was very effective for us in our grade levels.	ID Asset.	13	Special	Pos.	FALSE
314	9	Q2IESE-1.2	Online group discussion helps with subject content because people who were most familiar with certain assistive tech tools and had more experience than anothers, there able to make some good recommendations	Learning for oneself	13	Special	Pos.	FALSE
315	9	Q2IESE-1.2	we were learning about several instruments or tools each night but then to go and just apply you didn't gain enough information that you could honestly use a lot of or to make it really connect or really applying what we just learned to this case study	Learning for oneself	13	Special	Neg.	FALSE
316	9	Q2IFAA-4.2	He would spend time initally reviewing the questions or if he didn't spend a lot of time on a particular assistive tech tool he would and some one would like ask for more information about it.	Facilitator Asset	13	Special	Pos.	FALSE
317	9	Q2IFAA-4.2	I liked it when he opened up discussions	Facilitator Asset	13	Special	Pos.	FALSE
318	12	Q2IIDC-3.1	I wanted more details	ID Concerns	4	Regular	Neg.	FALSE
319	12	Q2IESE-1.2	I was able to get a lot of information from my group because they had a lot more teaching and learning experience	Learning for oneself	4	Regular	Pos.	FALSE
320	6	Q2EMESE-1.2	Understanding that I do have the ability to use AT. I had previously thought computer programs for that.	Personal Use	3	Regular	Pos.	FALSE

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321	10	Q2EMESE-1.2	Ask my librarian if we have accessibility.sub. To any of the e-book webs.	Personal Use	8	Regular	Pos.	FALSE
322	12	Q2EMESE-1.2	Definitions of various disabilities	Personal Use	4	Regular	Pos.	FALSE
323	6	Q2EMESE-1.2	Understanding that I do have the ability to use AT. I had previously thought computer programs for that.	Personal Use	3	Regular		FALSE
324	5	Q2EMFAC-4.1	What have you learned in this module that you have found interesting? The different types of disabilities and that I can take a quiz with no pressure	M1-Objectives measures and attainable	14	Special	Pos.	FALSE
325	6	Q2EMESE-1.2	What have you learned in this module? The ability to listen to Internet text without copying and pasting.	M3-Learning Obj.	3	Regular	Pos.	FALSE
326	9	Q2EMESE-1.2	What have you learned in this module? I learned the difference between a post and discussion	M3-Learning Obj.	13	Special	Pos.	FALSE
327	11	Q2EMFAC-4.1	What could your instructor do to help you? The instructions on how to fill out the SETT process and technology request for could have finished it before class	M13-Outcomes are attainable	6	Regular	Neg.	TRUE
328	7	Q2EMFS-2.2	What have you learned - I loved the boardmaker, I will use that often, it was helpful using the kioske powerpoint	M11-Software	10	Regular	Pos.	FALSE
329	11	Q2EMFS-2.2	What have you learned - draft builder, hadnt heard of it before	M12-Software	6	Regular	Pos.	TRUE
330	7	Q2EMFS-2.2	What have you learned - I learned how to do a power point	M14-Software	10	Regular	Pos.	FALSE
331	3	Q2EMFS-2.2	What have you learned - I like the template for the powerpoint presentation	M14-software	16	Regular	Pos.	FALSE
332	4	Q2EMFS-2.2	What have you learned - voice-text program are available and affordable to people other than just doctors.	M5-Software	3	Regular	Pos.	TRUE
333	3	Q2EMFS-2.2	What have you learned - Inspiration seems to be a good learning tool for students	M6-software	18	Regular	Pos.	FALSE
334	8	Q2EMFS-2.2	What is confusing - How Co Writer 4000 addresses fine motor issues	M5-software	16	Regular	Neg.	FALSE
335	10	Q2EMFH-2.1	Wht have you learned - the XP accessibility is pretty amazing	M13-Hardware	8	Regular	Pos.	FALSE
336	9	Q2EMFS-2.2	Wht couldyour instructor do - he provided ample time to explore the materials and share info with partners.	M7-Software	13	Special	Pos.	FALSE
337	6	Q2EMFT-2.4	I had a very difficult time using the e-reader, I think I would need a tutorial on software.	M3-Hardware	3	Regular	Neg.	FALSE

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338	5	Q2IFT-2.3	There were times that you couldn't get on it.	Hardware	14	Special	Neg.	FALSE
339	8	Q4IBHD-3.12	I thought it was pretty good. It was very effective. I liked being able to work online and pull up those articles and read them at my own pace instead of someone lecturing	Hybrid Design	16	Regular	Pos.	FALSE
340	12	Q4IRHD-4.1	I liked that it wasn't just online we did have face to face so you werent totally just left out there on your own. Since it was a hybrid I was able to have motivation with face to face then apply the content on my own.	Hybrid Design	4	Regular	Pos.	FALSE

GUIDING QUESTION THREE DATABASE

Guiding Question Three Database								
GQRI	Student (P) .	Master Content Code (MCC)	Participant Comments (PC)	Themes (TH)	Years Teaching (YT)	Regular or special (R/SP)	Positive/ Negative (PNE)	Other Online Course (OONC)
1	1	Q3ITIP-1.1	Probably what is most effective for me was using Writing symbols 2000 and making different work sheets that might be applicable for each individual child that I work with.	instructional practices	14	Special	Pos.	FALSE
2	1	Q3ITPI-1.3	Plus I gave materials for the parents to practice with at home	parent interaction	14	Special	Pos.	FALSE
3	1	Q3ITIP-1.1	I've been using Writing with symbols 2000 every week since the course.	Instructional practice	14	Special	Pos.	FALSE
4	1	Q3IRPC-3.1	I think when I have more time to use programs I will	Participant Concerns	14	Special	Pos.	FALSE
5	1	Q3ITPI-1.3	I did get visual, specifically what I wanted the parents to practice at home	Parent Interaction	14	Special	Pos.	FALSE
6	1	Q3IRSC-3.2	Children like Writing with sybols 2000 to say the word as you type it, and like what was that. Some of them you can tell they might not have a lot of exposure with the computer but they definitely like that it talks,that it had speakers.	Student Comments	14	Special	Pos.	FALSE
7	2	Q3ITIP-1.1	Well yes, I mean I use text readers and Im doing more cutting and pasting with my guys with the text reader and the cutting and pasting so they have a product.	Instructional Practice	20	Special	Pos.	FALSE
8	2	Q3IRSC-3.2	I use a lot of instructional technology anyways because they like it and for some of the more autistic kids it's the first it's the foot in the door, its like come on we can do this.	Student Comments	20	Special	Pos.	FALSE
9	2	Q3ITIP-1.1	Gives them feedback that is immediate. One of the benefits. By the time you have gotten around to looking at it, they have long since forgotten why they did what they did. Whereas now they get immediate feedback.	Instructional Practice	20	Special	Pos.	FALSE
10	2	Q3IATI-2.2	I did work with my guy who is a case study, he is a poster child for assistive technology. I have described him as having a lot of literate experiences, he has all those literate experiences without the literacy.	Teacher Instructional Examples	20	Special	Pos.	FALSE
11	2	Q3IATI-2.2	We use the text reader and we use work prediction software and he was able to produce quite a bit more and when he is left alone to his own devices to write it isnt much and he certianly demonstrated to me that he understood the content when he read.	Teacher Instructional Examples	20	Special	Pos.	FALSE

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12	2	Q3IATI-2.2	he used the text reader to gather some resources for research, he is in seventh grade and he had to do a research paper. we used the text reader and then we cut and pasted some of our notes.	Teacher Instructional Examples	20	Special	Pos.	FALSE
13	2	Q3IRSC-3.2	The third grader I did Mcfeedle Pond which was a story book and he got it right away too.	Student Comments	20	Special	Pos.	FALSE
14	2	Q3IRSC-3.2	He was very pleased and he was able to do it very quickly that was really what impressed me and that was the seventh grader.	Student Comments	20	Special	Pos.	FALSE

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15	2	Q3IATI-2.2	We did the text reader then we went back and decided what sentences we wanted to use to make a summary and then he just cut and pasted them to a word document and when I gave it to him he was so excited	Teacher Instructional Examples	20	Special	Pos.	FALSE
16	2	Q3IRSC-3.2	He said can I have one for my mom and my dad and my brother	Student Comments	20	Special	Pos.	FALSE
17	2	Q3ITOTI-1.4	We are starting to look at , we are really spending much more time looking at it on the IEP at the IEP process level, so we are looking at kids for assistive technology	Other Teacher Interaction	20	Special	Pos.	FALSE
18	2	Q3ITOTI-1.4	I have gone to teachers and loaded stuff on their computers and said you can use this with this guy and some of that has happened	Other Teacher Interaction	20	Special	Pos.	FALSE
19	2	Q3IRPC-3.1	I did talk to the psychologist who talked to the principal about using the links. there are so many wonderful links, in the textbooks for content areas.	Participants Concern	20	Special	Pos.	FALSE
20	3	Q3IATI-2.2	One of the programs I was told about was Write Out Loud, I have one student learning how to use it.	Teacher Instructional Example	18	Regular	Pos.	FALSE
21	3	Q3IRPC-3.1	I wish I would have taken it in the fall and then I could have used it all year	Participants Concern	18	Regular	Pos.	FALSE
22	3	Q3IRSC-3.2	I could assess him from there. He seems excited to do it.	Student Comments	18	Regular	Pos.	FALSE
23	3	Q3IATI-2.2	He isnt into typing but when the device talks back to him, it helps organize his thought and that is his main problem that he can orally say everything, but writing it down is difficult for him, so he thinks faster than he writes.	Teacher Instructional Examples	18	Regular	Pos.	FALSE
24	3	Q3IRSC-3.2	He was receptive because he wanted to do something different. he was already frustrated so I think he is ready to try anything at this point.	Student Comments	18	Regular	Pos.	FALSE
25	3	Q3ITIP-1.1	I can give him some kind of assistance that he can be independent and become a better writer	Instructional Practice	18	Regular	Pos.	FALSE
26	3	Q3ITOTI-1.4	Some of the other classroom teachers I talk about some of the technologies we learn about	Other Teacher Interaction	18	Regular	Neutral	FALSE
148	8	Q3ITIP-1.1	This one right now, I mean with the writing with symbols 2000 I use that all the time.	Participants Comments	16	Regular	Pos.	FALSE
27	6	Q3EMTIP-1.1	How could you integrate what you've learned? Asking kids to communicate differently for one day or trying to live with ability for one day.	M10-Instructional practice	3	Regular	Pos.	FALSE
28	12	Q3EMTIP-1.1	How could you integrate what you've learned? I could use the AT Wheel for some suggestions for instruction	M9-Instructional practices	4	Regular	Pos.	FALSE
29	11	Q3EMTIP-1.1	How could you integrate what you've learned? I can use the wheel to help with identification of assistive technology	M9-Instructional practices	6	Regular	Pos.	TRUE

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30	12	Q3EMTOTI-1.4	How could you integrate what you've learned?Talk with my special ed teacher about what I can do for some of my special education students	M9-Other Teacher Interaction	4	Regular	Pos.	FALSE
31	5	Q3EMTPU-1.2	How could you integrate what you've learned?I already write IEPs but there are areas in the form that I have not completed did not know what was expected to be written there, now I know	M9-Personal Use	14	Special	Pos.	FALSE
35	3	Q3EMTPU-1.2	How could you integrate what you've learned? Use SETT form to help organize student concerns for IEP meetings	M12-Personal Use	18	Regular	Pos.	FALSE
36	7	Q3EMTIP-1.1	How could you integrate what you've learned? I would like to try the Cheap Talk with a student in my room who has very limited speech.	M15-Instructional practices	10	Regular	Pos.	FALSE
37	8	Q3EMTPU-1.2	How could you integrate what you've learned? Use the SETT questions when thinking about referring students for AT	M15-Personal Use	16	Regular	Pos.	FALSE
39	2	Q3IRPC-3.1	In the middle schools even if you don't have the book scanned into Kursweil so you can read it, open the link and use the text reader that you got there and at least the kid can access the information.	M1-Participants Comments	20	Special	Pos.	FALSE
40	9	Q3EMTIP-1.1	How could you integrate what you've learned? I can now use search engines more effectively to locate info. That may be helpful for understanding a disability and/or locating resources for AT.	M2-Participation Comments	13	Special	Pos.	FALSE
41	10	Q3EMTIP-1.1	How could you integrate what you've learned?AAC with some of my lower students for vocabulary retention	M15-Instructional practices	8	Regular	Pos.	FALSE
42	6	Q3EMATI-2.2	How could you integrate what you've learned?I will be implementing the reward system suggested to me.	M14-Teacher Instructional Examples	3	Regular	Pos.	FALSE
43	3	Q3EMTPU-1.2	How could you integrate what you've learned? Use the SETT questions when thinking about referring students for AT	M14-Personal Use	16	Regular	Pos.	FALSE
44	3	Q3EMTIP-1.1	How could you integrate what you've learned? I learned a lot from a couple of the girls	M14-Participants Comments	18	Regular	Pos.	FALSE
45	6	Q3EMTIP-1.1	How could you integrate what you've learned? Changing Windows settings for visually impaired students	M13-Instructional practices	3	Regular	Pos.	FALSE
46	6	Q3EMTPU-1.2	How could you integrate what you've learned? How to look at a referral to determine if a child needs AT	M13-Personal Use	3	Regular	Pos.	FALSE
47	9	Q3EMTPU-1.2	How could you integrate what you've learned? I feel confident that I will be able to examine a student's neds to determine if they would benefit from an AT assess.	M13-Personal Use	13	Special	Pos.	FALSE

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48	10	Q3EMTIP-1.1	How could you integrate what you've learned? Use the XP settings to help my students	M13-nstructional practices	8	Regular	Pos.	FALSE

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49	1	Q3EMTPU-1.2	How could you integrate what you've learned? Using the outline forthe assist. tech. assess report and the referral with those who may need to complete one.	M13-Personal Use	14	Special	Pos.	FALSE
50	3	Q3EMTIP-1.1	How could you integrate what you've learned? I would like to use the window technology with my students when they present	M13-nstructional practices	18	Regular	Pos.	FALSE
51	6	Q3EMTPU-1.2	How could you integrate what you've learned? If need be, I know how to refer a student into an AT consultation	M13-Personal Use	3	Regular	Pos.	FALSE
52	5	Q3EMTIP-1.1	How could you integrate what you've learned? having my students do a power point presentation	M14-nstructional practices	14	Special	Pos.	FALSE
53	5	Q3EMATI-2.2	How could you integrate what you've learned? As a special educator, if I should have a student that gets referred, I now have information that I can use to help with the process.,	M15-Teacher Instructional Examples	14	Special	Pos.	FALSE
54	1	Q3EMATI-2.2	How could you integrate what you've learned? The SETT process helps prepare for information that may be needed for a Tech. Evaluation.	M15-Teacher Instructional Examples	14	Special	Pos.	FALSE
55	11	Q3EMTPU-1.2	How could you integrate what you've learned? I will integrate some of the suggestions made to help with my case study.	M14-Personal Use	6	Regular	Pos.	TRUE
56	9	Q3EMTPI-1.3	How could you integrate what you've learned? I could use power point presentations during Open House	M14-Parent Interaction	13	Special	Pos.	FALSE
57	6	Q3EMASW-2.1	How could you integrate what you've learned? Student interviews to hear student expectations and observations	M14-Student Work/Achievement	3	Regular	Pos.	FALSE
58	5	Q3EMTPU-1.2	How could you integrate what you've learned? Using the referral information if I need to refer a student	M13-Personal Use	14	Special	Pos.	FALSE
59	5	Q3EMTPU-1.2	How could you integrate what you've learned? It should have a student that gets referred, I now have information that I can use to help with the process	M12-Personal Use	14	Special	Pos.	FALSE
60	9	Q3EMTPU-1.2	How could you integrate what you've learned? I will be able to save time in the process by knowing what info. To complete and how to the appropriate personnel	M12-Personal Use	13	Special	Pos.	FALSE
61	12	Q3EMTPU-1.2	How could you integrate what you've learned? I will need to use the AT request form in my classroom	M12-Personal Use	4	Regular	Pos.	FALSE
62	11	Q3EMTIP-1.1	How could you integrate what you've learned? Using the boardmaker to make schedules for children that need it; powerpoint classroom also	M11-Instructional practices	6	Regular	Pos.	TRUE
63	12	Q3EMTIP-1.1	How could you integrate what you've learned? I would put together a picture schedule using a PCS like Boardmaker	M11-Instructional practices	4	Regular	Pos.	FALSE

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64	3	Q3EMASW-2.1	How could you integrate what you've learned? Student will use power point to show visual information about the Civil War	M11-Student Work/Achievement	18	Regular	Pos.	FALSE
65	4	Q3EMTIP-1.1	How could you integrate what you've learned? I would use boardmaker all the time	M11-Instructional practices	3	Regular	Pos.	TRUE
66	5	Q3EMTIP-1.1	How could you integrate what you've learned? I can use the powerpoint as m part of a leason in reading	M11-nstructional practices	14	Special	Pos.	FALSE
67	7	Q3EMTIP-1.1	How could you integrate what you've learned? I will be using the pictures I printed in class tonight tomorrow for the student case study this will help her a great deal	M11-Instructional practices	10	Regular	Pos.	FALSE
68	9	Q3EMTIP-1.1	How could you integrate what you've learned? I can utilize the BoardMaker program for creating daily schedules for students limited verbal skills.	M11-Instructional practices	13	Special	Pos.	FALSE
69	10	Q3EMTIP-1.1	How could you integrate what you've learned? I could use the boardmaker with some of my lower students for review of concepts.	M11-Instructional practices	8	Regular	Pos.	FALSE
70	1	Q3EMTIP-1.1	How could you integrate what you've learned? Boardmaker pictures could easily be used for class routines to following directions.	M11-Instructional practices	14	Special	Pos.	FALSE
71	8	Q3EMTPU-1.2	How could you integrate what you've learned? Use the SETT questions when thinking about referring students for AT	M12-Personal Use	16	Regular	Pos.	FALSE
72	2	Q3EMTIP-1.1	How could you integrate what you've learned? Im going to use the powerpoint with a text reader to do study guides for low readers	M11-Instructional practices	20	Special	Pos.	FALSE
73	12	Q3EMTIP-1.1	How could you integrate what you've learned? I will take the case study discussions and suggestions from the class and try to use them with my student	M10-Instructional practices	4	Regular	Pos.	FALSE
74	6	Q3EMTIP-1.1	How could you integrate what you've learned? I think a touch screen would be helpful and who knows if my student would enjoy playing an instrument.	M10-Instructional practices	3	Regular	Pos.	FALSE
75	9	Q3EMTIP-1.1	How could you integrate what you've learned?AT for math that I could possibly modify for my case study.	M8-Instructional practices	13	Special	Pos.	FALSE
76	10	Q3EMTOTI-1.4	How could you integrate what you've learned? I will be more vocal about AT in my IEP meetings	M8-Other Teacher Interaction	8	Regular	Pos.	FALSE
77	6	Q3EMTIP-1.1	How could you integrate what you've learned? Try partner activities with delayed students	M8-Instructional practices	3	Regular	Pos.	FALSE

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78	5	Q3EMTPU-1.2	How could you integrate what you've learned? I could refer back to resource guide for suggestions	M8-Personal Use	14	Special	Pos.	FALSE
79	4	Q3EMTIP-1.1	How could you integrate what you've learned?How to access and use the school OT	M8-Instructional practices	3	Regular	Pos.	TRUE
80	8	Q3EMTOTI-1.4	How could you integrate what you've learned? The lists in the articles may be good to share with other teachers to help in the school to realize what assistive technology is and that is can be very inexpensive expensive	M8-Other Teacher Interaction	16	Regular	Pos.	FALSE
81	11	Q3EMTIP-1.1	How could you integrate what you've learned? Use clicker 4 in my classroom	M7-Instructional practices	6	Regular	Pos.	TRUE
82	12	Q3EMTIP-1.1	How could you integrate what you've learned? Assistive technology for math	M7-Instructional practices	4	Regular	Pos.	FALSE
83	7	Q3EMTIP-1.1	How could you integrate what you've learned? I will utilize some of the AT software for reading. I love the grids	M7-Instructional practices	10	Regular	Pos.	FALSE
84	8	Q3EMTIP-1.1	How could you integrate what you've learned? I could use clicker 4 to enhance vocab to use in story writing	M7-Instructional practices	16	Regular	Pos.	FALSE
85	6	Q3EMTIP-1.1	How could you integrate what you've learned? Using clicker for vocab words and paragraph writing	M7-Instructional practices	3	Regular	Pos.	FALSE
86	5	Q3EMTIP-1.1	How could you integrate what you've learned? The different math assistive technology devices that were shown by the other teachers could be used in my math class.	M7-Instructional practices	14	Special	Pos.	FALSE
87	4	Q3EMTIP-1.1	How could you integrate what you've learned? I thought the clicker 4 could be a great help to my class, especially in a vocab situation	M7-Instructional practices	3	Regular	Pos.	TRUE
88	3	Q3EMTIP-1.1	How could you integrate what you've learned? I could make a power point presentation of subjects we learned in class. I like math tools we shared too.	M7-Instructional practices	18	Regular	Pos.	FALSE
89	1	Q3EMTIP-1.1	How could you integrate what you've learned? Clicker could be used with a nonverbal student who can read.	M7-Instructional practices	14	Special	Pos.	FALSE
90	12	Q3EMTPU-1.2	How could you integrate what you've learned? about student needs in my classroom. My new teaching suggestions that I can integrate into my class.	M6-Personal Use	4	Regular	Pos.	FALSE
91	10	Q3EMTIP-1.1	How could you integrate what you've learned? I have utilized some of the software in my classroom	M6-Instructional practices	8	Regular	Pos.	FALSE

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92	9	Q3EMTIP-1.1	How could you integrate what you've learned?This class continues to make me more conscienous of the need to vary the AT using with students. At the young age of my students, you could say that I am sampling of AT to see what might work best for the parti	M6-Instructional practices	13	Special	Pos.	FALSE
93	6	Q3EMTIP-1.1	How could you integrate what you've learned?Creating lists and webs instead of extended writing	M6-Instructional practices	3	Regular	Pos.	FALSE
94	4	Q3EMTPU-1.2	How could you integrate what you've learned? Different ways to try to approach reading and writing issues in my class	M6-Personal Use	3	Regular	Pos.	TRUE
95	1	Q3EMTPU-1.2	How could you integrate what you've learned? It helps bring an understanding that a variety of ways should be tried to enhance a person's performance	M6-Personal Use	14	Special	Pos.	FALSE
96	8	Q3EMTIP-1.1	How could you integrate what you've learned? Writing with Symbols 2000 with several of my students to help organization skills	M6-Personal Use	16	Regular	Pos.	FALSE
97	12	Q3EMTIP-1.1	How could you integrate what you've learned? If given the time and the technology I would love to use a voice-to-text program the creativity of my higher level writers. In first grade they are so imaginative with the vocabulary but so limited by their wri	M5-Instructional practices	4	Regular	Pos.	FALSE
98	11	Q3EMTIP-1.1	How could you integrate what you've learned? I have some books that were generated using reading with symbols 2000.	M5-Instructional practices	6	Regular	Pos.	TRUE
99	10	Q3EMASW-2.1	I already showed my classes the Inspiration software today. They were so excited jumped quickly onto the computers. They used Inspiration for their research papers	M5-Student/Work Achievement	8	Regular	Pos.	FALSE
100	8	Q3EMTIP-1.1	How could you integrate what you've learned? I would probably use the Writing with Symbols program. Many first graders have pictures to help them read especially directions.	M5-Instructional practices	16	Regular	Pos.	FALSE
101	6	Q3EMTIP-1.1	How could you integrate what you've learned? I already had my kids use Inspiration to creat persuasive essay webs and out	M5-Instructional practices	3	Regular	Pos.	FALSE
102	5	Q3EMTIP-1.1	How could you integrate what you've learned? When having my students complete a writing assignment, Inspiration could be used.	M5-Instructional practices	14	Special	Pos.	FALSE
103	3	Q3EMTIP-1.1	How could you integrate what you've learned? Use the microphone to help students write stories in class.Instructional practices	M5-Instructional practices	18	Regular	Pos.	FALSE

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104	1	Q3EMTIP-1.1	I could easily use Writing With Symbols 2000 with several students. Sentence strips/picture symbols could be developed to help children communicate with others. I would be difficult to use Dragon Naturally Speaking due to the make-up of my caseload.	M5-Instructional practices	14	Special	Pos.	FALSE

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105	12	Q3EMTIP-1.1	How could you integrate what you've learned? Im using text-to voice in my classroom as a center. The students write sentences "fix" mistakes that the voice reads	M4-Instructional practices	4	Regular	Pos.	FALSE
106	11	Q3EMTIP-1.1	How could you integrate what you've learned? Use the read please to see what the children think about it.	M4-Instructional practices	6	Regular	Pos.	TRUE
107	9	Q3EMTIP-1.1	I can integrate the use of At to enhance current skill levels of my students. I refer to the difference of mainstreaming and using AT tools when addressing student non general education teachers.	M4-Instructional practices	13	Special	Pos.	FALSE
108	7	Q3EMTPU-1.2	How could you integrate what you've learned? Use the read please in the morning message	M4-Personal Use	10	Regular	Pos.	FALSE
109	7	Q3EMTOTI-1.4	How could you integrate what you've learned? Using other's suggestions for my case study	M4-Other Teacher Interaction	10	Regular	Pos.	FALSE
110	5	Q3EMTIP-1.1	How could you integrate what you've learned? If they are reading from is not already on CD, it can be scanned and then they can listen along.	M4-Instructional practices	14	Special	Pos.	FALSE
111	3	Q3EMTIP-1.1	I would be able to let my less fluent readers use the tools to read to them research material which at times may seem difficult in content and reading level.	M4-Instructional practices	18	Regular	Pos.	FALSE
112	2	Q3EMTPU-1.2	How could you integrate what you've learned? I have been including more technological assist IEP for a high school bound student with limited reading and writing	M4-Personal Use	20	Special	Pos.	FALSE
113	1	Q3EMTIP-1.1	How could you integrate what you've learned? Trying ReadPlease with students to see if it can help with comprehension	M4-Instructional practices	14	Special	Pos.	FALSE
114	11	Q3EMTIP-1.1	How could you integrate what you've learned? It would be nice to use intellitalk in the classroom if they were accessible on our computers	M3-Participants Comments	6	Regular	Pos.	TRUE
115	10	Q3EMTIP-1.1	How could you integrate what you've learned? All of my students could use any of these, particularly when editing papers. I hear what they wrote, they would be more independent with their editing.	M3-Instructional practices	8	Regular	Pos.	FALSE
116	9	Q3EMTIP-1.1	How could you integrate what you've learned?I would like to utilize Intellitools with students in my class. Autism students who learning to read but weak in writing would be excellent with this software	M3-process of Content Int.	13	Special	Pos.	FALSE
117	7	Q3EMTIP-1.1	How could you integrate what you've learned? Intellitalk II would be great for my K students. It would help them with writing. They could also copy things to help them with reading.	M3-Istructional practices	10	Regular	Pos.	FALSE

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118	6	Q3EMTIP-1.1	How could you integrate what you've learned? Can have kids type word documents then listen for errors, can have lower reading students use programs to have better comprehension	M3-Instructional practices	3	Regular	Pos.	FALSE

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119	5	Q3EMTIP-1.1	How could you integrate what you've learned? Putting the stories or articles on the computer so the students can listen to words	M3-Instructional practices	14	Special	Pos.	FALSE
120	3	Q3EMTIP-1.1	How could you integrate what you've learned? I have a few students who periodicaly need tohave stories read tothem so they spend their time on the comprehension part of the lesson	M3-Instructional practices	18	Regular	Pos.	FALSE
121	11	Q3EMTIP-1.1	How could you integrate what you've learned?The writing paper with the raised lines is something I am going to look into for a child that is having difficulty writing	M2-Instructional practices	6	Special	Pos.	TRUE
122	10	Q3EMTIP-1.1	How could you integrate what you've learned? I have already begun to work with my case study student, discussing with her possibilities of the technology available to her	M2-Participant Comments	8	Regular	Pos.	FALSE
123	7	Q3EMTIP-1.1	How could you integrate what you've learned? Touch screenswould be great for Kindergarten reading pens could be used during centers to help them read without the assistance of teacher	M2-Instructional practices	10	Regular	Pos.	FALSE
124	5	Q3EMTIP-1.1	The nonreader would be using the text readers for an independent reading assignments. My students who struggle when writing would be used devices that would give that added support.	M2-Participant Comments	14	Special	Pos.	FALSE
125	12	Q3EMTOTI-1.4	How could you integrate what you've learned? Classroom instruction might be tough, but it might be nice to have a teacher discussion board.	M2-Other Teacher Interaction	4	Regular	Pos.	FALSE
126	1	Q3EMTPU-1.2	How could you integrate what you've learned? I could prepare some things at home and send them to my email at school	M2-Personal Use	14	Special	Pos.	FALSE
127	9	Q3EMTPU-1.2	How could you integrate what you've learned? I will be mindful of the definitions for disabilities when assessing students.	M1-Personal Use	13	Special	Pos.	FALSE
128	12	Q3EMTPU-1.2	Technology	M1-Navigation Technology	4	Regular	Pos.	FALSE
129	4	Q3ITIP-1.1	Once I realized how important they were I got all my tests loaded on Kursweil, I am using Readplease, I have it loaded on my classroom computer and I setup the walkman for books on tape.	Instructional Use	3	Regular	Pos.	TRUE
130	4	Q3IATI-2.2	Yes definitely, especially with the tape player and the book on tape to be able to rewind and go back and to listen to it again has helped.	Instructional example	3	Regular	Pos.	TRUE
131	4	Q3IATI-2.2	The only thing that I am using Kursweil for right now is testing. I havent completed loading my text on ityet, so content	Instructional example	3	Regular	Pos.	TRUE

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132	4	Q3IRSC-3.2	They are doing great	Student Comments	3	Regular	Pos.	TRUE
133	4	Q3IASW-2.1	They like, right now they down right depend on it, at this point a select few students use it	Student Example	3	Regular	Pos.	TRUE
134	4	Q3ITOTI-1.4	I think two other teammates have gone ahead and made the push to go on and get on the Kursweil	Other Teacher Interaction	3	Regular	Pos.	TRUE

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135	5	Q3IATI-2.2	I used the reading pen. The one eight grader that I worked with had an activity to do with giving information off the internet so in order for him to be more independent and not to rely on me so much,, that we used the reading pen.	Instructional example	14	Special	Pos.	FALSE
136	5	Q3IRPC-3.1	I would like to use Kursweil if I had taken this course earlier, towards the end of the school year was kind of difficult	Participant Comments	14	Special	Neg.	FALSE
137	5	Q3IROT-3.4	Yes, especiallly special educators. I would co-teach here, what knowledge and accomplishments especially for our huge classes of 33 and 34.	Other Teacher Comments	14	Special	Pos.	FALSE
138	6	Q3ITIP-1.1	Yes, I have used the text reader programs. Also the inspiration software as a graphic organizer	Instructional Use	3	Regular	Pos.	FALSE
139	6	Q3IATI-2.2	I used Inspiration to help students organize assignments, then turned infor a grade. Also they were allowed to listen as they typed a paper inorder to profread their work.	Instructional example	3	Regular	Pos.	FALSE
140	6	Q3IATI-2.2	Yes, one student who was not a good writer at all, after working with Inspiration to create an outline was able to write a 4 paragraph paper.	Instructional example	3	Regular	Pos.	FALSE
141	6	Q3IRSC-3.2	They liked Inspiration and text readers. They thought both were neat.	Instructional example	3	Regular	Pos.	FALSE
142	6	Q3ITOTI-1.4	Yes, I have talked to a special educator in my school about the Inspiration software as graphic organizers for students.	Other Teacher Interaction	3	Regular	Pos.	FALSE
143	7	Q3ITIP-1.1	Well I did make that schedule and I have used that for one of my students	Instructional Use	10	Regular	Pos.	FALSE
144	7	Q3IATI-2.2	That was just a little schedule to help one of my students unpack. That was the one I gave to Ms Stockton that day I wasn't here.	Instructional example	10	Regular	Pos.	FALSE
146	7	Q3IRPC-3.1	The listening center would be a good thing to do,havent gotten to that. With kindergarten a lot of things are too hard for them, but some of them could definitely be applied to them on the computer, like having a book read to them on the computer.	Participants Comments	10	Regular	Pos.	FALSE
147	7	Q3ITOTI-1.4	So I think with more practice probably she would become independent with it but at this time it is not independent. Her first grade teacher can continue with it	Other Teacher Interaction	10	Regular	Pos.	FALSE
149	8	Q3IATI-2.2	I used it within my instruction and making symbols for the morning routine	Instructional example	16	Regular	Pos.	FALSE
150	8	Q3IATI-2.2	Yes, especially with organization, daily routines and hands on type pictures clues I use the computer a lot.	Instructional example	16	Regular	Pos.	FALSE

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151	8	Q3IRSC-3.2	They like these kind of things as much as you can give them support, students like the kind of stuff that I do they feel good, they need somebody to help them be organize and show them steps.	Student Comments	16	Regular	Pos.	FALSE

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152	9	Q3IATI-2.2	Yes, I have been able to use use communication symbols to help facilitate communication in children and also to develop simplified say books, reading sentences tohelp a child to read.	Instructional example	13	Special	Pos.	FALSE
153	9	Q3IRPC-3.1	I just wasn't able to utilize it as I would have, as if this was a fall offered course.	Participant Comments	13	Special	Neg.	FALSE
154	9	Q3ITIP-1.1	I would say yes, because I would be able to implement some of these strategies. Some of these instruments and things	Instructional Use	13	Special	Pos.	FALSE
155	9	Q3IRSC-3.2	They loved them. They love the computer and the fact that we had new software that was entertaining and fun, they liked it.	Student Comments	13	Special	Pos.	FALSE
156	9	Q3ITOTI-1.4	We have shared how we are using this information. How we can implement it with different children, but again it was at the end of the year.	Other Teacher Interaction	13	Special	Pos.	FALSE
157	9	Q3IROT-3.4	Yes, one of the teachers is also implementing picture communication symbols in her classroom to label items and things for children.	Other Teacher Interaction	13	Special	Pos.	FALSE
158	11	Q3ITIP-1.1	We do use Writing with symbols 2000 a lot. That is the only thing we have used except for of course the Low Tech thing which is a calculator.	Instructional Use	6	Regular	Pos.	TRUE
159	11	Q3ITIP-1.1	With the Writing with symbols 2000 we do different things, we do things, we did books in the beginning, now we are doing little sentences with the words so the children can read them also so that they can copy them	Instructional Use	6	Regular	Pos.	TRUE
160	11	Q3ITIP-1.1	We use the pictures for children who cant read these words yet.	Instructional Use	6	Regular	Pos.	TRUE
161	11	Q3IATI-2.2	This one we use for writing sentences who, what, where, you have to pick a who then a what then a where to write a sentence. It is mostly for reading, writing and copying	Instructional examples	6	Regular	Pos.	TRUE
162	11	Q3ITIP-1.1	Definitely. I think that writing with symbols has been definitely wonderful with the pictures.	Participant Comments	6	Regular	Pos.	TRUE
163	11	Q3IATI-2.2	I think there is more confidence with those children that really werent understanding the letter sounds and I see more confidence with the connection to the pictures and even more confidence in reading the sentences with the pictures.	Instructional example	6	Regular	Pos.	TRUE
164	11	Q3ITIP-1.1	It makes a real difference with small groups with our readers.	Participant Comments	6	Regular	Pos.	TRUE
165	11	Q3IRSC-3.2	They seemed to really enjoy it. They like the little books and the picures, they are pretty flexible.	Instructional examples	6	Regular	Pos.	TRUE
166	11	Q3ITOTI-1.4	Yes, we did with our kindergarten team because Sandy and I, and I am sure the word spread around the school.	Other Teacher Interaction	6	Regular	Pos.	TRUE

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167	11	Q3IRPC-3.1	We all do use this, we only have one copy of it but we do our best to share.	Participant Comments	6	Regular	Pos.	TRUE

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168	12	Q3ITIP-1.1	Yes, I like the dragon speaking. I would love to learn more of that, the Readplease, Just learning more, technology isnt things with batteries or just things you plug in.	Particpants Comments	4	Regular	Pos.	FALSE
169	12	Q3ITIP-1.1	I use a lot more of assistive technology in my room than I thought I did already.	Particpants Comments	4	Regular	Pos.	FALSE
170	12	Q3ITIP-1.1	I will be doing a picture schedule this year where Ive never done that. I always just had the words and now I have actual pictures for those who understand the pictures more than the words.	Instructional Use	4	Regular	Pos.	FALSE
171	12	Q3IRPC-3.1	Being it's the end of the year, I don't know if it made a difference, I am sure doing something that I wasn't doing must have made some sort of impact.	Particpants Comments	4	Regular	Pos.	FALSE
172	12	Q3IRSC-3.2	They thought it was just games for the first grade.That is good they shouldn't know that this is instructional because if its instructional its too much work and they are not interested.	Student Comments	4	Regular	Pos.	FALSE
173	12	Q3IRSC-3.2	If tech. is something that they think is fun like a game then they would get more out of it.	Student Comments	4	Regular	Pos.	FALSE

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Guiding Question Four Database								
GQRI	Student (P)	Content Master Code (MCC)	Participant Comments (PC)	Themes (TH)	Years Teaching (YT)	Regular or Special (R/SP)	Pos/Neg (PNE)	Other Online Course (OONC)
1	1	Q4IBLE-3.4	I feel like different things that I have been doing, I feel more comfortable and it has just made sure of it.	Past learning experiences	14	Special	Pos.	No
2	1	Q4ICCP-2.1	I think sometimes the discussions that we had there it was hard to do a lot of back and forth, just because if you respond one way somebody might not respond needing you to respond back to them.	Collaboration	14	Special	Neg.	No
3	1	Q4IBEAR-3.9	Because everyone's time is limited it provided an opportunity that you could just kind of pop on there and see what others were thinking about your case study.	Instructional design	14	Special	Pos.	No
4	1	Q4ICP-2.5	I am the kind of person that with more practice the better I get. So probably having more practices with having to respond to him like opening attachments like even if it was just like hello, I found this picture on the Internet you know responding back that way.	Practice/ Review	14	Special	Pos.	Yes
5	1	Q4IRI-4.4	I like the format that you could easily get into the program to respond to the person, the questions, it was very easy to me.	Learning Infrastructure	14	Special	Pos.	No
6	1	Q4IBEAR-3.9	But the (discussion) case makes me more comfortable.	Benefits, Instructional design	14	Special	Pos.	No
8	1	Q4IBS-3.7	I felt that my partner always helped me with what direction to go next.	Support	14	Special	Pos.	No
9	1	Q4IBS-3.7	[The facilitator] was very good about stopping when he was on and answering any questions.	Facilitator Support	14	Special	Pos.	No
10	1	Q4ICP-2.5	It would have been better for me to have more assignments to do the activities even if they were very minimal	Review /practice Concerns	14	Special	Neg.	Yes
11	1	Q4IBLE-3.4	I just don’t do that eveyday so a lot of the stuff was kind of new to me	Incorporates past learning Exper.	14	Special	Pos.	No
12	1	Q4IBTE-3.11	Probably what was most effective for me was using Writing with symbols 2000 and making different work sheets that might be applicable for each individual child that I work with whether it would be speech or language.	Applicable to teaching experience.	14	Special	Pos.	No
13	1	Q4IBTE-3.11	I've been using Writing with symbols 2000 every week since the course.	Applicable to teaching experience.	14	Special	Pos.	No

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14	1	Q4IROT-4.2	No. I would recommend it though.	Rec. to other teach.		Special	Pos.	No
15	1	Q4IRHD-4.1	I think for those who like not having to meet every week or frequently it will be really good for those who are especially better learners that they can just read the material off of the computer now. It would work well for them I think.	Hybrid Design	14	Special	Pos.	No
16	1	Q4IRHD-4.1	Would recommend the AT Course? Yes	Hybrid Design	14	Special	Pos.	No
17	1	Q4IRE-4.3	I would recommend it. It gave me the opportunity to learn and be more efficient on the computer.	Recommend Hybrid Course	14	Special	Pos.	No
18	1	Q4IBS-3.7	Yeah, [the facilitator] was very helpful he came to our house to see if we needed an update or could help. That was very nice.	Benefits - Support	14	Special	Pos.	No
19	2	Q4IBEAR-3.9	I found it to be relatively easy, in order to access what you have to do.	Instructional Design	20	Special	Pos.	No
20	2	Q4IRHD-4.1	I thought it worked for what it was suppose to do	Hybrid Design	20	Special	Pos.	No
21	2	Q4IRI-4.4	But I really, every time I went on I was able to do what I wanted	D2L	20	Special	Pos.	No
22	2	Q4IRI-4.4	Yes, I thought it was easy, I didn't have any problems with it.	D2L	20	Special	Pos.	No
23	2	Q4ICS-2.7	IF I complained to {The facilitator] Dave it was something that was generic and everybody was having the same problem then they would fix it and it would work.	Support, Facilitator	20	Special	Pos.	No
24	2	Q4IBEAR-3.9	It's a really good place to do the kinds of things that where you have to access information on the Internet.	Instructional Design	20	Special	Pos.	No
25	2	Q4ICCP-2.1	To an extent the discussion groups were okay. We all talked about the fact that you didn't get all the feedback. But when you got all the feedback it was overwhelming	Collaboration	20	Special	Neg.	No
26	2	Q4ICCP-2.1	When we did an open discussion with everybody it was enormously overwhelming	Collaboration	20	Special	Neg.	No
27	2	Q4ICFF-2.3	So if it could be done a different way where you could get the feedback even one of the suggestions made was that even if it was only for your case study and otherwords if you had posted yours and you got all the information simply on your case study but summaries on everybody elses case study.	Feedback	20	Special	Neg.	No
28	2	Q4IBC-3.2	I really liked being able to explore what would happen was he would send you someplace and it would have links	Relevancy of content	20	Special	Pos.	No
29	2	Q4ICCP-2.2	Either resource-wise or actual software or instructional technology-wise. Im not sure that would happen in discussion.	Relevancy of content	20	Special	Neg.	No

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30	2	Q4IBCP-3.1	I was I think it was nice to see people from other middle schools and even actually it was kind of nice to have the time you don't have with the staff in your own middle school at the middle school level since I am only there 2 times a week.	Collaboration	20	Special	Pos.	No
31	2	Q4IBSRE-3.8	I think we did it did really turn into a community. I talked to people about things that I hadnt spoken to them about before even when I wasn't at the course .	Collaboration	20	Special	Pos.	No
32	2	Q4IRI-4.4	I felt like if offered two venues, one that you could post something and say, what are you talking about? But the other was because of the way it was setup. There were often ways you can go off and discover those things.	Learning Infrastructure	20	Special	Pos.	No
33	2	Q4IBFF-3.3	He was very responsive, I had no problems	Feedback	20	Special	Pos.	No
34		Q4IROT-4.2	Have you shared with other teachers, Yes	Other teachers		Special	Pos.	No
35	2	Q4IROT-4.2	I have gone to teachers and loaded stuff on their computers and said you can use this with this guy and some of that has happened . But a lot of that is some of it is just activities to keep them out of trouble more than it is for knowledge.	Other teachers		Special	Pos.	No
36	2	Q4IBTE-3.11	IEP process level so we are looking at kids for assistive technology	Teaching experience	20	Special	Pos.	No
37	2	Q4IRI-4.4	How would you descirbe the hybrid learning environment - I liked it.	Learning Infrastructure	20	Special	Pos.	No
38	2	Q4IBLE-3.4	You have to feel comfortable and feel that you can learn to use it.	past learning experiences	20	Special	Pos.	No
39	2	Q4IBCP-3.1	I would recommend they feel that way first, take a few minutes to and then we certainly had people that were a whole range and everybody asked qustions and they got there questions answered sometimes it was the guy next to you that could answer and that was fine because that is one of the good things when you met is if you were having some kind of little technology glitch that the person next to you could fix.	Collaboration	20	Special	Pos.	No
40	2	Q4IBFF-3.3	Same as above	Feedback	20	Special	Pos.	No
41	2	Q4IRHD-4.1	So it does have some benefits certainly to have people meeting on a regular basis	Hybrid Design	20	Special	Pos.	No
42	2	Q4IRHD-4.1	Not just for the content but even for the access	Hybrid Design	20	Special	Pos.	No
43	2	Q4IROT-4.2	Recommend - As a matter of fact I did	Other teachers		Special	Pos.	No
44	2	Q4CEAR-2.9	If I had a complaint it would be that people waited until Sundary night to post stuff and frankly and part of that was you know, my schedule and their was another girl who had the same issues.	Concerns hybrid Design	20	Special	Neg.	No

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45	2	Q4ICEAR-2.9	And I think he could certainly on a regular basis could have reminded people that, and also put it in his rubric.	Concerns, Hybrid	20	Special	NEG.	No
46	2	Q4IRE-4.3	Would you enroll in another? Yes	another course	20	Special	Pos.	No
47	2	Q4IBSRE-3.8	Something that was different and new and even when I had to write those miserable IEPs	Safe environment	20	Special	Pos.	No
48	3	Q4IRHD-4.1	No, I like the way it was designed, because I have a family and you know at eleven oclock at night I could do my class when everybody is in bed and I didn't have to take time away from my family.	Hybrid Design	18	Regular	Pos.	No
49	3	Q4IBS-3.7	I could take my time to read it and reread it over again.	Support	18	Regular	Pos.	No
50	3	Q4IBAP-3.5	Some of the things the instructor gave us to do he had tutorials on the side so if I didn't know how to do something I would go in to the tutorials and sometimes I made hard copies of it and I could refer back to it as I was doing it.	Practice/Review	18	Regular	Pos.	No
51	3	Q4IBS-3.7	I really enjoyed that I still got the instruction with the personal contact, which really enjoy	Support	18	Regular	Pos.	No
52	3	Q4IBS-3.7	I still like having a teacher but I like having the fact that I don't have to do everything with that person that I could be independent. I like the way it was 50/50 like that I liked the way the class was run.	Support	18	Regular	Pos.	No
53	3	Q4IRE-4.3	I liked the way it was designed. I wish I could take more like that	Safe, would take another	18	Regular	Pos.	No
54	3	Q4IRI-4.4	I thought it was very accessible, I thought when I went in it was very clear when you just click on different things and it came right up.	Learning Infrastructure	18	Regular	Pos.	No
55	3	Q4IBEAR-3.9	I like the activities because everything he modeled the assistive technology then we did the PowerPoint presentation so when other people researched different technology we were exposed to it on that overhead and that helped a lot because then you know, I didnt have to sit there and take the time to read everything, and then I think more information was shared because we are all obviously responsible adults and we could look it up ourselves ourselves.	Instructional Design	18	Regular	Pos.	No
56	3	Q4IBAP-3.5	Kind of student which was really helpful too because is somebody had already been exposed to that kind of student or had somebody in their class that had those disabilities they could make suggestions they had already tried.	Practice/ Review	18	Regular	Pos.	No
57	3	Q4IBLE-3.4	I got to share the living books which nobody else knew about either and I got that from my own experience	Other teachers	18	Regular	Pos.	No

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58	3	Q4IBTE-3.11	Also a lot of people talked about that Inspiration which I don't have on my computer right now but now that they made me aware maybe I will be able to have more of that. Also the flow charts, are really helpful.	Teaching experience	18	Regular	Pos.	No
59	3	Q4IBCP-3.1	I really had a good group members. I thought that they sound like even those that had taught 2 or 3 years they sounded like they had experience in the technology field, to me it was almost an advantage because I have such young people that they learned more technology.	Collaboration	18	Regular	Pos.	No
60	3	Q4IBS-3.7	They didn't know some of the things that I knew it kind of helped because two of them were like under 25 and the other two were older than 32 It worked out really well.	Support	18	Regular		No
61	3	Q4IBCP-3.1	I could have asked anybody in our group and they would have helped me.	Collaboration	18	Regular	Pos.	No
62	3	Q4IBEAR-3.9	Yes, because the way that it was design it was like we learn something and then we got to try it onour own and then we learned something new and we got totry it on our own.	Instructional Design	18	Regular	Pos.	No
63	3	Q4IBS-3.7	So in a way it was supportive because if you tried it at home and it didn't work and then when I came back the next time I had a couple questions then [The facilitator] could answer them or other ;people even said if you do this this might help or you might want to try sojmething different.	Support	18	Regular	Pos.	No
64	3	Q4IBSDL-3.10	IT wasn't like a discussion, when you came back you still could talk about it a different way and then other people asked informatin and I felt Like I could contribute to them too	Nurturing Environment	18	Regular	Pos.	No
65	3	Q4IBCP-3.1	Like I knew nothing. Like I am a novice, I have my computer at home and use it for emails and papers for school	Collaboration	18	Regular	Pos.	No
66	3	Q4IBFF-3.3	He constantly kept in contact with us. He read comments that we have and then he would email you if you have a question about your case study or something that you written, so I knew all week long he was checking the computer because he emailed me like on Wednesday.	Feedback	18	Regular	Pos.	No
67	3	Q4IBTE-3.11	Application - Yes	Teaching experience	18	Regular	Pos.	No
68	3	Q4IROT-4.2	Some of the other classroom teachers I talk about some of the technologies we learn about.	Other teachers		Regular	Pos.	No
69	3	Q4IRHD-4.1	I told them , I really liked it because of the beginning of instruction and the independence of working on your own.	Hybrid Design	18	Regular	Pos.	No
70	3	Q4IRHD-4.1	Would recommend the assit. Tech course - Yes	Hybrid Design	18	Regular	Pos.	No

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71	3	Q4IROT-4.2	What were other teachers reaction - they were interest in taking it	Other teachers		Regular	Pos.	No
72	3	Q4IRE-4.3	Would you take another hybrid course -Yes	Self, take another	18	Regular	Pos.	No
73	3	Q4IRHD-4.1	I like the way it was setup, I like that there still someone to guide you if you have a question you can come back and ask them but you are still independent to work at your own speed and still learn with all the tutorials that he had.	Hybrid Design	18	Regular	Pos.	No
74	3	Q4IBAP-3.5	I found the tutorials very helpful.	Practice/Review	18	Regular	Pos.	No
75	4	Q4ICEAR-2.9	At times it was a little hard to follow and sometimes I didn't really know what was expected so I had to like kind of collaborate with other people to get a definitive answer on what was going on.	Instructional Design	3	Regular	Neg.	Yes
76	4	Q4IBEAR-3.9	That ended getting solved as we went through, and the syllabus was much easier to follow along in the last half of the class.	Instructional Design	3	Regular	Pos.	Yes
77	4	Q4IBSRE-3.8	I liked a human being to ask questions when there is computer issues; I thought it was pretty good.	Safe, Respectful Environment	3	Regular	Pos.	Yes
78	4	Q4IBEAR-3.9	I like it better than both an online course and an in class.	Instructional Design	3	Regular	Pos.	Yes
79	4	Q4IBS-3.7	I liked it because there is always a reminder that tomorrow to get on, I had to get on certain days of the week.	Support	3	Regular	Pos.	Yes
80	4	Q4IBEAR-3.9	I didn't like it at first, but once [the facililitator] tweaked something so that every time you click on something there was a new window that made it a lot easier for me for some reason.	Instructional Design	3	Regular	Pos.	Yes
81	4	Q4IBS-3.7	[The facilitator]ability to solve the problems helped a lot and sustain - Yeah	Support	3	Regular	Pos.	Yes
82	4	Q4ICAE-2.11	I kind of didn't find it as helpful as other people in the class probably did because most of the stuff was much more in depth, than at least up until now.	applicable to teaching experience.	3	Regular	Neg.	Yes
83	4	Q4IBFF-3.3	People comment about your work and that was very helpful.	Feedback	3	Regular	Pos.	Yes
84	4	Q4ICEAR-2.9	Some of them were good but the majority was centered around the discussion which I didn't really care for it too much.	Instructional Design	3	Regular	Neg.	Yes
85	4	Q4IBCP-3.1	I learned from conversation with them, programs that we havent talked about in class and maybe specific brand names that we havent talked about in class, that made me more aware so in that way it was helpful.	Collaboration	3	Regular	Pos.	Yes
86	4	Q4IRHD-4.1	A little bit of both, a lot of times I thought it was a community kind of atmosphere and some times it was independent.	Hybrid Design	3	Regular	Pos.	Yes
87	4	Q4IBS-3.6	Facilitator support -So he was on top of it pretty well.	Support	3	Regular	Pos.	Yes
88	4	Q4IROT-4.2	Have you shared with other teachers, Yes teammates			Regular	Pos.	Yes

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89	4	Q4IRHD-4.1	Good, much easier to manage than having to dedicate that much time in the classroom all the time, it is a lot easier to make time to jump onto the computer, and I can take advantage of it during lunch and things like that.	Hybrid Design	3	Regular	Pos.	Yes
90	4	Q4IROT-4.2	Overall would you recommend the ATP - Yes absolutely	Hybrid Design		Regular	Pos.	Yes
91	4	Q4IRE-4.3	Because it was so easy to manage and I got good information out of it.	Recommend to take another	3	Regular	Pos.	Yes
92	4	Q4IRE-4.3	Yes and hope to if they offer more of them.	Recommend to take another Hybrid Course	3	Regular	Pos.	Yes
93	11	Q4IRHD-4.1	Any Concerns? Not really, because we had the face to face and of course my colleagues they were there to talk to if I needed anything.	Hybrid Design	6	Regular	Pos.	
94	11	Q4IRHD-4.1	I liked it, I liked the fact that we had the face to face to have those explanations of things we didn't understand through out the week but I also like the online part of it too because you had the luxuy of doing it from your home but you were also interacting with other people in the computer so you get their input and their ideas as well as putting in your own, so I liked both aspects of it.	Hybrid Design	6	Regular	Pos.	Yes
95	11	Q4IRI-4.4	Every now and then I had problems getting into some of the links but usually once I emailed Dave to let him know he was very good helping out with that, but no I really didn't have a lot of problems at all, I thought it was very easy to use.	Desire2Learn	6	Regular	Pos.	Yes
96	11	Q4ICEAR-2.9	Honestly I like the face to face better because you are able to get the feedback if you need some explanations, when you are doing it at home you are not disciplined. Sometimes at home but you have to make yourself disciplined to make sure you do it,	Instructional Design	6	Regular	Neg.	Yes
97	11	Q4IBS-3.7	[The facilitator] was very good that if we didn't get online by certain times and amount he (would) email us, so it is nice to have an instructor. If we didn't get online [The facilitator] will send us an email and say I really need you to do this by this date	Support - Facilitator	6	Regular	Pos.	Yes
98	11	Q4IBCP-3.1	The interaction with my peers was very good.	Collaboration	6	Regular	Pos.	Yes

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99	11	Q4IBCP-3.1	The discussion threats that we used to do that was very good.	Collaboration	6	Regular	Pos.	Yes
100	11	Q4ICP-2.5	My problem was reading those articles at home because it was hard reading from my computer so I will print them out.	Practice/Review	6	Regular	Pos.	Yes
101	11	Q4IBFF-3.3	I thought it was very helpful; I thought it was nice to hear different ideas especially from the fact that we were not all elementary teachers, the middle school teachers would have a different insider of what we thought so that was interesting too	past learning experiences	6	Regular	Pos.	Yes
102	11	Q4IBC-3.2	Was the discussions rich? I think for the most part they were, there were only a couple weeks that we didn't really have much to say.	Relevancy of content	6	Regular	Pos.	Yes
103	11	Q4IBSRE-3.8	I thought I was part of a community, definitely	Community	6	Regular	Pos.	Yes
104	11	Q4IBCP-3.1	Yes, definitely, not only from [The facilitator] but from our peers too because if we didn't know how to do something like post somebody in the discussion would asked and then somebody else would helped. Here was a lot of support there.	Collaboration	6	Regular	Pos.	Yes
105	11	Q4IBAP-3.5	I didnt really have to experience that	Tech - Practice/Review	6	Regular	Pos.	Yes
106	11	Q4IBS-3.7	I thought it was wonderful; I thought he was very good; he was always available when we needed him and he was willing to go over things and spend more time on things if we needed it during our face to face time.	Facilitator Support	6	Regular	Pos.	Yes
107	11	Q4IBTE-3.11	The only thing that we have available to us is the Writing with symbols 2000 so we do use that a lot that is really the only thing we have used.	Applicable to participants teaching experience	6	Regular	Pos.	Yes
108	11	Q4IBTE-3.11	Shared with other teachers? - Yes, we did with -our kindergarten team because Sandy and I, and I am sure the word spread around the school	Applicable to participants teaching experience	6	Regular	Pos.	Yes
109	11	Q4IBHD-3.12	Describe the Hybrid learning experience - I will explain to them that we spent certain amount of the time, face to face with the instructor getting the face to face information and then during the week we do as backup to what we did in class online at home.	Hybrid Design	6	Regular	Pos.	Yes

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110	11	Q4IRHD-4.1	I would definitely recommend it, since I took a completely online class I think that the hybrid is the way to go, I liked the support there. Plus some people don't like to sit in class so its nice you don't have to go two or three times a week.	Hybrid Design	6	Regular	Pos.	Yes
111	11	Q4IROT-4.2	Yes. I thought it was very informative and I think it was very good for us to know what is out there that is available to these children that are having difficulties, in ways we can help them because I didn't know a lot about some of this stuff so its nice to know about it, in case I have a child in my classroom that would need it.	To Other teachers		Regular	Pos.	Yes
112	11	Q4IROT-4.2	Teachers reaction - Good class and a couple of them said they had wished they had taken it actually, but they couldn't fit into their schedule, but maybe next year.	To Other teachers		Regular	Pos.	Yes
113	11	Q4IRE-4.3	Would enroll in another class - Yes	Would take another course	6	Regular	Pos.	Yes
114	12	Q4ICEAR-2.9	Any Concerns? Yes. About some of the assignments	Instructional Activities	4	Regular	Neg.	No
115	12	Q4IBCP-3.1	With it being a hybrid, I knew who to talk to, and I knew all my classmates were reading the post so I could always ask estions and find out the answers.	Collaboration	4	Regular	Pos.	No
116	12	Q4IBS-3.7	I could talk to the instructor face to face, I could call [The facilitator], and I could post a message on the board and have it answered for some cases for everybody! Plus we had the syllabus that I could look at also and get information. There was plenty of sources.	Support	4	Regular	Pos.	No
117	12	Q4ICEAR-2.9	More information about some of the technology, about some of the case studies that we did. I needed more information about the students more information about what was available to help those students that's the whole point of the case studies and the discussions of the case studies.	Instructional Activities	4	Regular	Neg.	No
118	12	Q4IRHD-4.1	I liked that it wasn't just online we did have face to face so you werent totally just left out there on your own. Since it was a hybrid I was able to have motivation with face to face then apply the content on my own.	Hybrid Design	4	Regular	Pos.	No
119	12	Q4IRI-4.4	Very good, I really liked it. The menu were easy to follow and once we were shown the first day that you just had to go to a different link everything could come right up and I could open it in separate windows and just look at information and take right from one. Desire2learn I liked a lot.	Desire2Learn	4	Regular	Pos.	No
120	12	Q4IBEAR-3.9	We were presented with some new tools that I did use.	Instructional design	4	Regular	Neutral	No

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121	12	Q4IBEAR-3.9	Yes. There might have been others but we didn't know about them. I don't know if there are other things out there most of the information was new to me	Instructional design	4	Regular	Neither	No
122	12	Q4ICEAR-2.9	I think we had a lot of the discussions where I was just, think about this question,I think that was the first one that everybody participates in, so the more participation by the group I think the better and the more valid and the more helpful those discussion were.	Instructional design	4	Regular	Negative	No
123	12	Q4IBCP-3.1	I was able to get a lot of information from my group because they had a lot more teaching and learning experience than I had in my four years so I think they were positive influence for the other group members	Collaboration	4	Regular	Pos.	No
124	12	Q4IBSRE-3.8	I think a lot of it was definitely more community than on my own. It was a community discussing and I was taking what I wanted and what I needed out of the community	Community	4	Regular	Pos.	No
125	12	Q4IBS-3.7	Yes. With it being hybrid, I think the hybrid is what made it a positive and supportive effective infrastructure. If it was just online I don't think the structure would have been there but with it being getting together once a week face to face.	Support	4	Regular	Pos.	No
126	12	Q4IBEAR-3.9	The structure was there we knew what was going to happen before it actually happened, we were able to be prepared.	Instructional Design	4	Regular	Pos.	No
127	12	Q4IBS-3.7	Dave is great. You could always email him and if we posted a question to him in the discussions he monitored all the discussion somehow and could answer back	Facilitator Support	4	Regular	Pos.	No
128	12	Q4IBTE-3.11	I use a lot more of assistive technology in my room than I thought I did already.	Applicable use	4	Regular	Pos.	No
129	12	Q4IBTE-3.11	I had inclusion last year, so I didnt think that I had to change alot of what I was already doing and obviously I will be doing those things next year with inclusion. I always just had the words and now I have actual for those who understand the pictures more than the words.	Applicable use	4	Regular	Pos.	No
130	12	Q4IROT-4.2	Shared information? Probably not	Other teachers		Regular	Neg	No
131	12	Q4IROT-4.2	Experience to othe teachers? Yes. I actually have recommended doing the assistive tech. with other teachers.	Other teachers		Regular	Pos.	No
132	12	Q4IROT-4.2	Recommend - Yes and I have	Other teachers		Regular	Pos.	No
133	12	Q4IRE-4.3	Would enroll? Yes. I would.	Self, take another	4	Regular	Pos.	No
134	12	Q4IRHD-4.1	It definitely has caused me to want to take more technology and learn more about assistive technology.	Hybrid Design	4	Regular	Pos.	No

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135	5	Q4IBSDL-3.10	Comments about course - Chance to interact with colleagues more than I have done before. Its nice to interact with other people outside our building	Community	14	Special	Pos.	No
136	5	Q4IRE-4.3	Would you enroll in another - I really liked It because of the timeframe.	Recommend to take another	14	Special	Pos.	No
137	5	Q4IROT-4.2	Would you recommd to other teachers - Yes especially special educators. I would co-teach here, what knowledge and accomplishments especially for our huge classes of 33 or 34.	Recommend to other teachers		Special	Pos.	No
138	5	Q4IRHD-4.1	Describe hybrid experience - I would recommend taking the course. It was useful, pertinent information that can be used during the week and the online portion is an extension of that class.	Hybrid Design, recommendation	14	Special	Pos.	No
139	5	Q4IBTE-3.11	I used the reading pen. I would like to use Kursweil if I had taken this course earlier (instead of) towards the end of the school year.	applicable to teaching experience.	14	Special	Pos.	No
140	5	Q4IBS-3.7	Facilitator support -It was excellent. No matter what you said or the question asked I never felt like I had a dumb question and if I had to email him he was quick to respond.	Support - Facilitator	14	Special	Pos.	No
141	5	Q4IBA-3.13	I used the tutorials especially at the beginning, my computer skills have really doubled since I came to Queen Anne's so I look to those to help	Collaboration	14	Special	Pos.	No
142	5	Q4IBHD-3.12	ATPD effectiveness - I thought it was very effective.	Hybrid Design	14	Special	Pos.	No
143	5	Q4IBEAR-3.9	Effectiveness of online - Certain things, it was there again the time so sometimes when you are not within the group you are by yourself.	Instructional design	14	Special	Neg..	No
144	5	Q4IRI-4.4	But overall it was up and running and with no problems	Desire2Learn	14	Special	Pos.	No
145	5	Q4ICEAR-2.9	Instructional activities - I think they were good if I had more of a class situation than what I did then it would have been more beneficial because it touched the various areas.	Instructional Activities	14	Special	Neg.	No
146	5	Q4ICEAR-2.9	Effectiveness of online - I don’t know if I did enough online discussions because of the time, what I did in school and then got home because I did most of my work at home and I would respond once and sometimes I would never respond to them again	Instructional Activities	14	Special	Neg	No
147	5	Q4ICEAR-2.9	When we are talking about pre-school and kindergarten, It was kind of hard to relate since you were in middle school, to relate what their needs were.	Instructional Activities	14	Special	Neg.	No
148	5	Q4IBSRE-3.8	The longer the course went on the more I felt like part of a community	Community	14	Special	Pos.	No

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149	6	Q4IBHD-3.12	Effectiveness of hybrid inst design - I thought the hybrid design was a good way to take that class because it allowed us individual learning time as well as group reflection and presentation time	Hybrid Design	3	Regular	Pos.	No
150	6	Q4IRI-4.4	I I think that the instruction in the first class did cover how to use Desire2Learn, so overall I thought it was a very easy program to get use to.	Learning Infrastructure	3	Regular	Pos.	No
151	6	Q4IBEAR-3.9	I thought that all of them were well planned out and I thought that most of them could be applied to any school setting and there were certain programs that we talked about which I have applied to the seventhgrade Reading setting.	Instructional Activities	3	Regular	Pos.	No
152	6	Q4IBEAR-3.9	For the discussions these were suggestions from other teachers about what we could do with particular students which was nice to have because we don't have time to talk to other teachers about those things.	Instructional Activities	3	Regular	Pos.	No
153	6	Q4ICEAR-2.9	Like to seen more in discussions? - yes, suggestions or different ideas from other people.	Instructional Activities	3	Regular	Neg.	No
154	6	Q4IBC-3.2	Reactions to discussions - It was nice to hear things that you havent really thought about in a while and for elementary, and we had a lot of elementary teachers in our group so it gave us good incite as to what they were doing at that point in time.	Relevancy of content	3	Regular	Pos.	No
155	7	Q4IBSDL-3.10	Id say the community. Like we had our smaller discussion groups so we kind of knew everybody in our small group what they were daying. But at the same time we did have our individual pacing we were allowed to do these assignments on our own time. So I think it allowed for both. I liked the balance between the two.	Community	10	Regular	Pos.	No
156	7	Q4IROT-4.2	Yes, I have talked to a special educator in my school about the Inspiration software as graphic organizers for students.	To Other teachers		Regular	Pos.	No
157	7	Q4IBTE-3.11	I used Inspiration to help students organize assignments, then turned in for a grade. Also they were allowed to listen as they typed a paper in order to proofread there work. I have also used the text reader programs.	Application to participants teaching experience	10	Regular	Pos.	No
158	7	Q4IBS-3.7	Facilitator - I thought over all he did a great, good job. He was quick to respond to anybody and he did tell us if there were problems with Desire2learn.	Facilitator Support	10	Regular	Pos.	No

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159	7	Q4IBHD-3.12	hybrid design provided support Infrastructure - I would say that with our instructor,yes. Because if we had anything that went wrong he was very quick to get back on the email to us. I mean everything that we had problems with wewould discuss the next time in class or we could just email.	Hybrid Design	10	Regular	Pos.	No
160	7	Q4IBHD-3.12	Describe hybrid experience -I think a hybrid-learning course is an easier way to take a class for professional training. It allows a person to get activities done at their own pace.	Hybrid Design	10	Regular	Pos.	No
161	7	Q4IROT-4.2	Recommend - Yes.	Recommendation for other teachers		Regular	Pos.	No
162	7	Q4IRE-4.3	Yes - I thought the hybrid design was a good way take that class because it allowed us individual learning time as well as group reflection and presentation time.	Recommendations for yourself	10	Regular	Pos.	No
163	7	Q4ICEAR-2.9	Management - Group class time was wasted. This happened when getting from 1st task to the 2nd. I really feel there was a better way to use the time.	Instructional Design	10	Regular	Neg.	No
164	7	Q4IBHD-3.12	Hybrid learning environment -I think it was very effective, I think it was helpful meeting once a week to clarify things easier than just online, where you can still communicate but it was easier when we met face to face.	Hybrid Learning	10	Regular	Pos.	No
165	7	Q4IRI-4.4	Desire2Learn - I think it was pretty easy, most of it was very clear, there were a couple of things here and there that we werent able to get to when we were supposed to and that was difficult and ten we had a whole week to wait before we had to figure all that out but other than that as long as the things were, where they were supposed to be it was pretty	Desire2Learn	10	Regular	Pos./neg.	No
166	7	Q4IBC-3.2	instructional activities - I thought they were great. [The facilitator] taught us about each of the different things we can get or do online or that were accessible. I have never seen before in my 10 years, so it was brand new for me and then even everything we did in class was a follow up to the online so then it was easy to get online and get to what we needed because we've already practice(d) it.	Instructional Activities	10	Regular	Pos.	No
167	7	Q4IBTE-3.11	There was another one it had liked a grid and you go in and click the picture in a different grid so you can make a picture. Like I made that was what I made the schedule with was that, and I made it that night.	Self directed learning	10	Regular	Attribute	No
168	7	Q4IBEAR-3.9	content - I think those kinds of things were very helpful. Everything he let us practice.	instructional design	10	Regular	Pos	No

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169	7	Q4ICEAR-2.9	Now at the end it was confusing when we had everybody on there because I kind of got lost like whose am I looking at now and that kind of thing	instructional design	10	Regular	Neg.	No
170	7	Q4IBC-3.2	I guess it was interesting because we had from kindergarten all the way up to high school, it was good to see that a lot of us are doing some of the you still use some of the same strategies and some of the same thins or if they werent it was good for some of the early childhood people to givve suggestions to those that are working with older kids.	Relevancy of content	10	Regular	Pos.	No
171	7	Q4IBSRE-3.8	I felt a community, definitely. Because in the classroom for one it was a small group and it was easy to ask questions.	Community	10	Regular	Pos.	No
172	7	Q4IBS-3.7	There were also occasions where you would speak to the whole entire class so you just feel like part of a group. Anytime you had a question they would answer it.	Support	10	Regular	Pos.	No
173	7	Q4IBS-3.7	[The facilitator] he would make sure that all the questions were answered.	Support-Facilitator	10	Regular	Pos.	No
174	7	Q4IBS-3.7	Hybrid profess. Develop. Yes, I do I thought the articles that were online were excellent and then we always got the chance to discuss that. The support as far as the other people like I said before with your case study you feel really supported as far as them offering suggestions and giving you help,and the instructor of course was very supportive.	Support	10	Regular	Pos.	No
175	7	Q4IBS-3.7	He was excellent. He really goes out of his way to answer any question and I am not really big on computers. Also, I felt at the very beginning itwas very intimated to take the class but he handled it really well and he never made me feel uncomfortable and by the end of it I felt 100% better.	Support-Facilitator	10	Regular	Pos.	No
176	7	Q4IBTE-3.11	Applied content - Yes, I make schedules and I have used that for one of my students.	Application to participants teaching	10	Regular	Pos.	No
177	7	Q4IROT-4.2	Have you shared with other teachers, I havent really (shared) too much outside of that group of teaches in our school who took the class.	Other teachers		Regular	Neg	No
178	7	Q4IBHD-3.12	Describe H. D - I would describe it as there is an online portion and then there is aportion where you meet together in the classroom and you learn how to communicate when you are not in the classroom, online.	Hybrid Design	10	Regular	Pos.	No
179	7	Q4IRE-4.3	I would definitely recommend it. I would take another.	Recommendation	10	Regular	Pos.	No
180	7	Q4IRE-4.3	I did not really know that much and I guess there were some things that I was already doing that I didn't know were consider assistive technology.	Recommendation	10	Regular	Pos.	No

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181	7	Q4IRE-4.3	Would you enroll in another - Yes	Recommendation	10	Regular	Pos	No
182	7	Q4IBA-3.13	I feel that if I could get through it anybody could because I am not real great with the computer but I really thought that it was beneficial to me and it will be really helpful for my students in the future.	Computer tech	10	Regular	Pos.	No
183	8	Q4IBHD-3.12	I thought it was pretty good. It was very effective. I liked being able to work online and pull up those articles and read them at my own pace instead of someone lecturing	Hybrid Design	16	Regular	Pos.	No
184	8	Q4ICP-2.5	I would have liked to had more review time. Just more time to decipher it learn it just more time to go over maybe the different kinds of assistive technology, it was overwhelming to me when you are not using it hands on.	Practice/Review	16	Regular	Neg.	No
185	8	Q4IRI-4.4	I thought it was pretty good. I had to learn it. I think if I were to take it again it would be much easier to understand it all and know were I am going, I knd of felt like I had to learn and I just feel like the second time if I were taken another one through this same design it would be easier to me.	Desire2Learn	16	Regular	Neutral	No
186	8	Q4IRI-4.4	Desire2Learn I needed support time to go through	Desire2Learn	16	Regular	Positive	No
187	8		I liked them, where we had to go in and read articles and do the video thing, the only thing with my computer the video I couldn't get the video part to come up.	Instructional activities		Regular	Pos.	
188	8	Q4IBC-3.2	I thought the articles were good, I enjoyed it and I learned a lot from it, if anything I learned how to do a lot of things that I had just not done, because I had to do a lot of like attachment and sending emails	Relevancy of content	16	Regular	Pos.	No
189	8	Q4IBCP-3.1	I learned a lot from a couple of the girls	Support	16	Regular	Pos	No
190	8	Q4IBCP-3.1	IT was interesting to see some of the problems that they were having in middle school or things that their kids are struggling with or their approach to how they would go about teaching students with learning disabilities, or it was interesting to hear.	Support	16	Regular	Pos	No
191	8	Q4IBSRE-3.8	Looking at different levels and everyone complementing other people, you hear people saying that was a great idea and that's good if you get good people and their discussing things it could be real positive.	Safe environment	16	Regular	Pos.	No
192	8	Q4IBS-3.7	I think within our group I felt very comfortable discussing and I think the way [The facilitator] made time into small groups was probably a good thing	Safe Environment	16	Regular	Pos.	No
193	8	Q4IBS-3.7	Hybrid Design Support II would call someone and they would help me. ,	Support	16	Regular	Pos.	No

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194	8	Q4IBHD-3.12	I think what benefit me in getting through this course was just being at home actually	Hybrid Design	16	Regular	pos.	No
195	8	Q4IBTE-3.11	Yes, especially with organization, daily routines and hands on type pictures clues I use the computer a lot.	applicable to teaching experience.	16	Regular	Pos.	No
196	8	Q4IBHD-3.12	Describe HD - Take a class that is not drawn out everyday and you can do a lot of it online at home after school, at nighttime on the weekends. I like the way the assignments were all told, he wrote it all out for you, what your assignments were due or what you had to do. I had to learn how the modules worked.	Hybrid Design	16	Regular.	Pos.	No
197	8	Q4IROT-4.2	Yes, I think every teacher needs to take it, they don't teach you this in college, new teachers don't know any of this stuff maybe they do but I didn't know half of this stuff.	To Other teachers		Regular		No
198	8	Q4IRE-4.3	Enroll in another HD - Yes	Recommendation	16	Regular	Pos.	No
199	8	Q4ICP-2.5	I would like to have more time reviewing and maybe some kind of organization.	Review/practice Concerns	16	Regular	Pos.	No
200	9	Q4IBHD-3.12	I like the idea of having the hybrid course because I only needed to be here and a way from my family one night a week, and the other time I could be at home or I could work online at my leisure. We also had our syllabus online and I could go back and refer to information we learned previously or when I got home and wanted to lookup certain programs or information.	Hybrid Learning	13	Special	Pos.	No
201	9	Q4IBS-3.7	I also liked doing it through my work, my school building because three other colleagues were also taking that course and if we had questions or we got stumped or we needed help with anything, so that was another reason why I decided to do it when I did because I knew the other gals were taking it.	Support	13	Special	Pos.	No
202	9	Q4IBEAR-3.9	Effectiveness of instructional design - I thought it was a very effective, because we were able to discuss questions, discuss new information face to face with the instructor as well as colleagures.	Instructional Design	13	Special	Pos.	No
203	9	Q4IBHD-3.12	When I went home and was able to read the information online (and) complete those tasks at my leisure at a pace that I needed to go on plus at home I had opportunities to refer back to my notes from class.	Hybrid Learning	13	Special	Pos.	No
204	9	Q4IBA-3.13	I was also able to, I liked being able to email the instructor to get answers and information as I neded.	Tech application	13	Special	Pos.	No

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205	9	Q4IRI-4.4	I felt like the Desire2Learn program was very easy. It was very sort of self taught, but just simplistic enough that I could go in, I felt comfortable using it anytime. It was very accommodating for us little bit less than you know, techie people.	Desire2Learn	13	Special	Positive	No
206	9	Q4IBEAR-3.9	Instructional Activities - I thought we had a very good variety of resource to explore, Dave, you know, it was very appropriate that he offered not only did we get hands on, but we were also able to have face-to-face but we could have colleague input plus his input on how other people used those systems and programs.	Instructional activities	13	Special	Pos.	No
207	9	Q4IBEAR-3.9	We were also able to adapt that particular learning to what we are doing so it was more effective. It was very effective for us in our grade levels.	Instructional Activities	13	Special	Pos.	No
208	9	Q4ICEAR-2.9	Discussion Activities- ..we didn't always have enough information since we were just learning about assistive technology resources we didn't always have enough information to continue those discussions so I thin the discussions were a little challenging in the way that once we said what our initial thought and suggestions were and that was it.	Instructional Activities	13	Special	Neg.	No
209	9	Q4ICEAR-2.9	Dave kept tellng us that our discussions needed to be a little meatier and lengthier and so on, but everyone just got to a point where you could , what else could you say, you know.	Instructional Activities	13	Special	Neg.	No
210	9	Q4ICEAR-2.9	The discusions going back and foth were the biggest hang up for me. As well as the class. And we just didn't have enough information to keep it going.	Instructional Activities	13	Special	Neg.	No
211	9	Q4ICEAR-2.9	Online Discussions I didn't think they were effective for that at all	Instructional Activities	13	Special	Neg.	No
212	9	Q4IBEAR-3.9	It was good, but probably helped with subject content.	Instructional Activities	13	Special	Pos.	No
213	9	Q4ICEAR-2.9	I think the case studies were a great way to get information and some help on a child you were having trouble with. However, I found that was probably the least effective part of this class, only because people were just not as knowledgeable.	Instructional Activities	13	Special	Neg.	No
214	9	Q4ICEAR-2.9	I think the discussions were very helpful too when Dave reviewed questions that people had that either emailed him after the previous class.	Instructional Activities	13	Special	Pos	No
215	9	Q4IBSRE-3.8	I felt we were a community. IT was a very good group of people. Very good pulling everybody together and making everybody feel comfortable and welcomed.	Community	13	Special	Pos.	No

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216	9	Q4IBHD-3.12	Hybid prof devel. Yes I did. We just had a multiple resources available for us to explore and to learn.	Hybrid Design.	13	Special	Pos.	No
217	9	Q4IBS-3.7	[The facilitator] is very good pulling everybody together and making everybody feel comfortable and welcomed. And no I felt like we were a big community	Support - Facilitator	13	Special	Pos.	No
218	9	Q4IBS-3.7	Facilitator - I thought it was excellent. Once you get to know him.	Support - Facilitator	13	Special	Pos.	No
220	9	Q4IROT-4.2	Shared - Just the teachers that also participated in the course. We shared how we are using this information.	Recommendation for other teachers		Special	Pos.	No
221	9	Q4IBEAR-3.9	Decribe hybrid learning - I think it is very effective. Its less stressful as far as the timeframe that you are at the computer at school and the timeframe you are able to do it at home just its less just doesn t offer the stresses a typical classroom situation offers.	Hybrid Learning	13	Special	Pos.	No
222	9	Q4IBHD-3.12	We also had our syllabus online and I could go back and refer to information we learned previously or when I got home and wanted to look up certain program or information.	Hybrid Design	13	Special	Pos.	No
223	9	Q4IBEAR-3.9	I just enjoyed it much more than textbooks I felt like it wasn't as restrictire and it probably just a sign of the times but it was a little more motivating and engaging than a typical textbook kind of lecture course.	Hybrid learning	13	Special	Pos.	No
224	9	Q4IBEAR-3.9	I do better when I am learning to be able to go back on my own and to be able to take time to process it and then review it. Again and so on.	Hybrid Learning	13	Special	Pos.	No
225	9	Q4IBTE-3.11	Application of content - Yes, I have been able to use facilitate communication symbols for to help facilitate communication in children and also to develop simplified say books, reading sentences to help a child to read.	Application Tech	13	Special	Pos.	No

APPENDIX J - Summary of Data Results for Hybrid Professional Development Course Quantitative Instruments

Table J1

Course Evaluators' HPDR Data Results

I. Course Overview & Introduction	**Total Pts Available**	**Total Pts Received**	**Percent**
1.1 Navigational Instruction	18	18	100
1.2 Course Syllabus	18	15	83
1.3 Course Information	18	18	100
1.4 Netiquette	12	12	100
1.5 Learning activities appropriate for mode of instruction	12	12	100
1.6 Technology applicable	6	5	83
1.7 Facilitator/ means of communication	6	6	100
1.8 Introduction by class students	6	6	100
Total Category Points & Percentage	*96*	*92*	*96*
II. Maryland Standards			
2.1 Meets MD Teacher Professional Development	18	18	100
2.2 Meets MD Teacher Technology Standards	18	18	100
2.3 Meets MD Content Standards	18	18	100
Total Category Points & Percentage	*54*	*54*	*100*
III. Learning Objectives (Competencies)			
3.1 Learning objectives describe outcomes	18	18	100
3.2 Course content is current & learning objectives address content mastery	18	18	100
3.3 Instructions to students on how to meet learning objectives are adequate	12	11	92
3.4 Course Learning objectives are clearly stated & understandable	12	12	100
3.5 There is no redundancy in tasks or activities due to duel methods of course delivery	12	10	83
Total Category Points & Percentage	*72*	*69*	*96*
IV. Assessment and Measurement			
4.1 Assessments consistent with course activities	18	18	100
4.2 Grading policy is easy	18	15	83
4.3 Assessments provide feedback	12	10	83
4.4 The types of assessments are appropriate for mode of delivery	12	12	100
4.5 Submission methods are appropriate	12	12	100
4.6 Learners are allowed to evaluate content	6	6	100
Total Category Points & Percentage	*78*	*73*	*94*
V. Learner Interaction and Support Standards	**Total Pts Available**	**Total Pts Received**	**Percent**

5.1 Hybrid provides a variety of activities	18	18	100
5.2 Clear standards are set for instructor	18	12	67
5.3 The overall hybrid design provides a clearly articulated path	12	12	100
5.4 The course provides information on how to obtain academic resources	12	12	100
5.5 Tutorials are available to provide support	6	5	83
Total Category Points and Percentage	*66*	*59*	*89*
VI. Resources and Materials			
6.1 The course materials have depth and content	18	18	100
6.2 Resources and materials	12	11	92
6.3 All instructional materials are appropriate for content delivery	6	6	100
Total Category Points and Percentage	*36*	*35*	*97*
VII. Course Technology and Instructional Design			
7.1 Tools and media enhance interactivity and active learning	18	18	100
7.2 All technologies for course are provided	18	18	100
7.3 All course links are operational	18	15	83
7.4 Media is compatible with hybrid-learning	12	12	100
7.5 Online learning modules are consistent and compatible	12	12	100
7.6 All online course modules follow design convention	12	12	100
7.7 All online course modules are limited to numbered of fonts/colors	6	6	100
7.8 The online course requires no horizontal scrolling	6	6	100
Total category Points and Percentage	*102*	*99*	*97*
VIII. 508 Compliance			
8.1 Evidence of some effort to recognize 508 requirements	18	18	100
8.2 Web pages provide alternative to auditory & visual content	12	10	83
8.3 Web pages video & audio files have links that have Alt. tags.	6	6	100
Total Category Points and Percentage	36	34	94
TOTAL RUBRIC POINTS AND PERCENTAGE	540	515	95

Table J2

Course Participants' HPDR Data Results

I. Course Overview & Introduction	**Total Pts Available**	**Total Pts Received**	**Percent**
1.1 Navigational Instruction	36	36	100
1.2 Course Syllabus	36	36	100
1.3 Course Information	36	36	100
1.4 Netiquette	24	24	100
1.5 Learning activities appropriate for mode of instruction	24	23	96
1.6 Technology applicable	12	12	100
1.7 Facilitator/ means of communication	12	12	100
1.8 Introduction by class students	12	12	100
Total Category Points & Percentage	*192*	*191*	*99*
II. Maryland Standards			
2.1 Meets MD Teacher Professional Development	36	36	100
2.2 Meets MD Teacher Technology Standards	36	36	100
2.3 Meets MD Content Standards	36	36	100
Total Category Points & Percentage	*108*	*108*	*100*
III. Learning Objectives (Competencies)			
3.1 Learning objectives describe outcomes	36	36	100
3.2 Course content is current & learning objectives address content mastery	36	36	100
3.3 Instructions to students on how to meet learning objectives are adequate	24	23	96
3.4 Course Learning objectives are clearly stated & understandable	24	23	96
3.5 There is no redundancy in tasks or activities due to duel methods of course delivery	24	21	87
Total Category Points & Percentage	*144*	*139*	*96*
IV. Assessment and Measurement			
4.1 Assessments consistent with course activities	36	36	100
4.2 Grading policy is easy	36	36	100
4.3 Assessments provide feedback	24	23	96
4.4 The types of assessments are appropriate for mode of delivery	24	24	100
4.5 Submission methods are appropriate	24	24	100
4.6 Learners are allowed to evaluate content	12	12	100
Total Category Points & Percentage	*156*	*155*	*99*
V. Learner Interaction and Support Standards	**Total Pts Available**	**Total Pts Received**	**Percent**
5.1 Hybrid provides a variety of activities	36	36	100

5.2 Clear standards are set for instructor	36	36	100
5.3 The overall hybrid design provides a clearly articulated path	24	23	96
5.4 The course provides information on how to obtain academic resources	24	24	100
5.5 Tutorials are available to provide support	12	12	100
Total Category Points and Percentage	*132*	*131*	*99*
VI. Resources and Materials			
6.1 The course materials have depth and content	36	36	100
6.2 Resources and materials	24	24	100
6.3 All instructional materials are appropriate for content delivery	12	12	100
Total Category Points and Percentage	*72*	*72*	*100*
VII. Course Technology and Instructional Design			
7.1 Tools and media enhance interactivity and active learning	36	36	100
7.2 All technologies for course are provided	36	35	97
7.3 All course links are operational	36	35	97
7.4 Media is compatible with hybrid-learning	24	24	100
7.5 Online learning modules are consistent and compatible	24	24	100
7.6 All online course modules follow design convention	24	24	100
7.7 All online course modules are limited to numbered of fonts/colors	12	12	100
7.8 The online course requires no horizontal scrolling	12	11	92
Total category Points and Percentage	*204*	*201*	*98*
VIII. 508 Compliance			
8.1 Evidence of some effort to recognize 508 requirements	36	36	100
8.2 Web pages provide alternative to auditory & visual content	24	23	96
8.3 Web pages video & audio files have links that have Alt. tags.	12	12	100
Total Category Points and Percentage	72	71	98
TOTAL RUBRIC POINTS AND PERCENTAGE	1080	1068	98.8

Table J3

ATES Data Results

Questions	Mean	Std. Deviation
1	4.33	.492
2	3.58	.668
3	4.50	.522
4	4.33	.651
5	3.75	.452
6	4.17	.577
7	3.92	.792
8	4.00	.426
9	2.58	.996
10	4.33	.492
11	3.92	1.128
12	4.42	.514
13	4.33	.492
14	4.42	.514
15	4.00	.426

Note: ATES questions scores were rated using 5 point scale (1= strongly disagree, 5=strongly agree).

Table J4

ATCPT Data Results

Group	n	Pre-Test	Post-Test	Increase
All	12*	54.4%	76.6%	40.4%
< 10 years	5	53.0%	75.0%	41.5%
> 10 years	7	56.4%	75.7%	34%
Special Ed.	4	61.2%	83.7%	36.7%
Regular	8	52.5%	73.1%	39.2%

Note: *Indicates the entire ATPD course population. Pre-test, Post-test and Increase reflect the mean % for each participant group.

Table J5

One-Sample T-Test Results

Assistive Technology Professional Development Content Pre-Test Post Test Results						
One-Sample T-Test (Confidence Level)						
					Confidence Level at p<.05	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
PrePost Overall	4.977	11	**p=.00**	21.25	11.852	30.647
					Confidence Level at p<.05	
	T	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Less Than 10	5.41	4	**p=.006**	22	10.722	33.278
More Than 10	2.95	6	**p=.026**	20.71	3.53	37.898
					Confidence Level at p<.05	
	T	df	Sig. (2-tailed	Mean Difference	Lower	Upper
Special Ed.	2.714	3	p=.07	22.5	-3.8875	48.887
Regular Ed.	3.893	7	**p=.006**	20.625	8.097	33.152

APPENDIX K – Guiding Questions Triangulation Worksheets (GQTW)

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Question 1.1 - To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 1.1 Navigation Desire2Learn (Q1ICON; Q1EMCON)</td><td>HBDR</td></tr>
<tr><td>Qualitative Data</td><td>Interview –Pos Comments</td><td>36/36pts = 100%</td></tr>
<tr><td colspan="2" rowspan="2">(P2) -" I thought it was easy to use because it was pretty straight forward how to use it" (P9)- "I felt like the D2L program was very easy. It was sort of self taught, but just simplistic enough that I felt comfortable". (P12) "You had to go to a different link ...everything could come right up and I could open it in separate windows and just look at information and take right from one. Desire2Learn I liked a lot."</td><td>ATES</td></tr>
<tr><td>Q. 3 mean = 4.5; Q1=4.3; Q6=4.2
Note - Between 75 - 100% of participants agreed there was no problem with the courses' learning Infrastructure</td></tr>
<tr><td>Qualitative Data</td><td>Interview –Neg Comments</td><td rowspan="6">Researcher's Comment
According to qualitative comments and quantitative data participants did not seem to have difficulty with the Desire2Learn Learning Platform More time to practice is noted</td></tr>
<tr><td colspan="2">(P4) -'"Little hard to follow sometimes". (P8) - Unless you look at the dates, ...sometimes when I would pull it up I wouldn’t understand it because I hadnt pulled up the one before". (P6) - '"We needed time to play with and check out how to do certain things like the drop box or the discussion" (P6) - 'Instruction in the first class did cover how to use Desire2Learn so overall I thought it was a very easy program to get use to."</td></tr>
<tr><td>Qualitative Data</td><td>End of Module- Pos. Comments</td></tr>
<tr><td colspan="2">(P1) -"I learned in this module how to move on the screen to open different pages"</td></tr>
<tr><td>Qualitative Data</td><td>End of Module- Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 – To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.1 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-based learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard – 1.2 Syllabus (Q1ICOS;Q1EMCOS); 1.3 Informational resources & academic support (Q1IICORA;Q1EMCORA); 1.6 Technology Requirements (Q1IICOT; Q1EMICOT)</td><td>HBDR
1.2 36/36=100%
1.3 36/36=100%
1.4 36/36=100%</td></tr>
<tr><td>Qualitative Data</td><td>Interview Pos. Comments</td><td>ATES</td></tr>
<tr><td colspan="2">(P12) – The syllabus was just right there we could just click at a link and see what we were doing next time. The structure was there. We knew what was going to happen. (P9) – We always had our syllabus online and I could go back and refer to information we learned" (P4) - ….As we went through, the syllabus was much easier to follow." (P3) "What the instructor gave us to do he had tutorials on the side. So if I didn't know how to do something I would go in the tutorials and sometimes I made hard copies of it."</td><td>Q6= 4.2 participants agreed that informational technology and support was available during this class. Q3=4.5 this suggested that participants ranked between agree and strongly agree that they were not at a disadvantage in this class because they didn't previously understand course tech. (Desire2Learn).</td></tr>
<tr><td>Qualitative Data
.</td><td>Interview – Neg Comments</td><td rowspan="5">Researcher's Comments:
1.2, 1.3 By the end of the course all comments reflected that a syllabus was available. In addition, the HPDR recorded a 100% score. Participants felt the syllabus was available to all. However some confusion about course assignments was acknowledged. Participants gave the course a 100% score for support and academic resources and online tutorials.
1.6 Quantitative data suggests that participants did not feel that they were at a disadvantage because of their lack of knowledge about tech used in during the hybrid course. However, one individual did feel that technology requirements needed to be posted prior to the beginning of the course.</td></tr>
<tr><td colspan="2">(P1) "It was kind of frustrating because I didn't realize that initially, so maybe somewhere in the course if it mentioned the bare minimum it would help.</td></tr>
<tr><td>Qualitative Data</td><td>End of Module – Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Module – Neg. Comments</td></tr>
<tr><td colspan="2">M-1 (P2) "We needed the information to complete the course." M-1 (P6) "What our projects are and what they entail." M-2 (P6) "Our online assignments" (P6) -? I think I would need a tutorial on software (P6) – Give us a similar case study that has been completed. (P3) – I would like a tutorial of how to make a power point presentation.</td></tr>
</table>

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 – To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.1 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 1.4 Netiquette expectations (Q1IICOE; Q1EMICOE) 1.8 Introduction of Students (Q1IICOI;Q1EMICOI)</td><td rowspan="2">HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview – (IGQ) – Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td><td>1.4, 12/12=100%
1.8, 12/12=100%</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td>ATES Data</td></tr>
<tr><td colspan="2" rowspan="2">1.4 (P2) -People waited to post, not good for people assigned to summary. (P10) “I couldn’t summarize my groups’ discussions because as of yesterday at 3:30, members had not posted.”</td><td>N/A</td></tr>
<tr><td rowspan="5">Researcher’s Comments
1.4 Although all participants gave standard a total score of 100%, a couple of individuals through the interview sessions mentioned that participants were slow to post their responses for discussion activities, which held up other members of the group. - Possible facilitator course management problem 1.8 Met standards, but received no feedback</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos.Comments</td></tr>
<tr><td colspan="2">1.4 N/A
1.8 N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg.</td></tr>
<tr><td colspan="2">1.4 N/A 1.8 N/A</td></tr>
</table>

Guiding Question One Triangulation Worksheet

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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.1 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 1.5 Learning activities appropriate for mode of instruction (Q1ICOLA; Q1EMICOLA)</td><td>HPDR</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) - Pos Comments</td><td>1.5=23/24pts = 96%</td></tr>
<tr><td colspan="2" rowspan="2">(P3)- "I liked the activities because we where exposed to different instructional distribution" (P2)"'Hybridity infrastructure allowed you to post and also go off online and discover other things" (P2)-Discussion groups were okay. We all talked about the fact that you didn’t get all the feedback, but when you got all the feedback it was overwhelming. (P6) "I thought the hybrid design was a good way to take that class because it allowed us individual learning time as well as group reflection and presentation time".(P7) -"I think the hybrid instruction design was very effective, it was helpful meeting once a week to clarify things easier than just online where you can still communicate but it was easier when we met face to face".(P12)"I think the hybrid is what made it a positive and supportive effective infrastructure. If it was just online I don’t think the structure would have been there."(P8)-'I liked being able to work online and pull up those articles and read them at my own pace instead of someone lecturing."</td><td>ATES</td></tr>
<tr><td>Q1 - 4.3 score suggested participants’ agreed that Desire2Learn helped them learn course content.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg Comments</td><td rowspan="5">Researcher’s Comments
The data indicates that this standard received an overall 96% score on the HPDR. It also recorded 22/27 positive comments that ran the gambit of both special and reg. educations for all years of experience. Most were favorable for activities and hybrid infrastructure; however some participants had difficulty with the online discussion activities. Specifically, the number of discussion responses, and how to manage the responses</td></tr>
<tr><td colspan="2">(P1)- I thing sometimes the discussions that we had there it was hard to do a lot of back and forth, just because if your respond one way somebody might not respond needing you to respond back to them. (P9)1 'I didn’t think discussion were effective for all .(P7) Now at the end it was confusing when we had everybody on there because I kind of got lost like whose am I looking at now and that kind of thing. (P2) We all talked about the fact that you didn’t get all the feedback, but when you got all the feedback it was overwhelming.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg.Comments</td></tr>
<tr><td colspan="2">(P10) "Chunk the topics so that all of the information does not run together' (P1) Not being extremely proficient with computers, I need practice to do something with guidance, then independently with opportunities to ask questions.</td></tr>
</table>

Guiding Question One Triangulation Worksheet

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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding SubQuestion 1.1 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard - 1.7 Facilitator provides means of communication & support (Q1IICOF; Q1EMICOF)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>12/12=100%</td></tr>
<tr><td colspan="2" rowspan="3">(P12) "[The Facilitator] is great, you could always email him and if we posted a question to him in the discussions he monitored all the discussion and would get back." (P12) "'I know if I could call [The facilitator], and I could post a message on the board get an answer." (P8) 'I like the way it would be oh gosh, I liked the way he had it scheduled. (P2) "'Still had personal contact with the instructor." (P7) "By the end of it I felt completely 100% better about it, I feel so much more comfortable with the things we worked on."</td><td>ATES Data</td></tr>
<tr><td>Q9 = 2.5 - disagree/neither agree or disagree that this hybrid course took away from time or support from the course facilitator.</td></tr>
<tr><td rowspan="7">Researcher’s Comments
Participants overwhelmingly felt the facilitator was very attentive to their needs and provided support through emails, telephone calls and personal visits to school and in one case, a home site. This support was reflected by a 100% score for the Hybrid Rubric. However the End of Course Survey was somewhat middle of the road, where most either disagreed or felt neither agreement or disagreement that the hybrid course made them feel less connected to the instructor. One theme that seems to appear in many categories is the need for more time to practice the hands-on activities. Or more repetition/modeling by the facilitator when introducing new content concepts.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">(P5) "'What could your instructor do to help you? I could not get the video to play at school. So, a little more instruction if I had encountered these problems." (P6)"What in this module is still confusing? Discussion expectations" (P11)"'What should be changed ? It is important for us to take the time to be shown how to use and do various things to complete this course"</td></tr>
</table>

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.2 To what degree did course participants acknowledge that the ATPD course's goals and objectives were clearly defined and measurable according to high quality hybrid learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 2.1 Meets MD Professional Development Standards (Q1ISPD; Q1EMSPD) 2.2 Meets MD Tech Standards(Q1IST; Q1EMIST) 2.3 Meets Content Standards (Q1ISC; Q1EMISC)</td><td>HPDR Data
2.1 36/36=100%
2.2 36/36=100%
2.3 36/36=100%</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td></td></tr>
<tr><td colspan="2">N/A</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td>Does not apply</td></tr>
<tr><td colspan="2">N/A</td><td rowspan="5">Researcher's Comments
No oral comments were specifically made about the different standards that were addressed throughout this professional development course. However, according to the Rubric all participants were given copies of the MD Tech Standards and the MD and NSCD Professional Development Standards so that they could address this question. All participants believed that these specific areas were addressed within the course. Therefore, it was determined that participants strongly agreed that all specific standards were met.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2" rowspan="2">Guiding Subquestion 1.2 To what degree did course participants acknowledge that the ATPD course's goals and objectives were clearly defined and measurable according to high quality hybrid learning standards</td><td>Quantitative Data</td></tr>
<tr><td>HPDR Data</td></tr>
<tr><td colspan="2">Standard 3.1 Outcomes are measureable & obtainable (Q1IOO; Q1EMOO) 3.2 Content is current & obj. address mastery (Q1IOCM; Q1EMOCM)</td><td>3.1, 36/36 = 100%
3.2, 36/36 = 100%</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>ATES Data</td></tr>
<tr><td colspan="2" rowspan="2">3.2 (P7) -I thought the instructional activities conducted through the hybrid-learning were great. I have never seen some before in all my 10 years (P7)-" I think those kinds of things were very helpful. Everything he let us practices."</td><td>Does not Apply</td></tr>
<tr><td rowspan="9">Researcher's Comments
3.1 Most comments dealt with specific information that was learned, how they will use it and sometimes about their confusion with the instructional process (all found in other questions) One comment did mention that even at Module 14 the participant was still experiencing difficulty with understanding the purpose of some of the assist. Tech tools. However on the Hybrid Rubric, participants gave this standard full points or participants were 100% in agreement about the objectives and outcomes of the course. 3.2 Although all participants gave this standard 36 maximum points or 100% there were a number of comments about some of the instructional practices conducted by the facilitator, all comments came from teachers who had taught over 10 years, a number felt that in order to master content they needed more practice and review time. They also wanted more hands on time. This becomes very relevant in standard 1.33</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">3.2 (P1) "It would have been better for me to have more assignment to do the activities even if they were very minimum".(P1) 'I have to be a hands on type of learner, that would have to be more concrete in my mind" (P9) -'I think the discussions online which were about a persons case study. I think that was probably the misconception of the whole thing because I believe the intent was to use the concept from the class.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">3.1 (P9) "'What in this module is still confusing? Some of the tools are still unclear as to what their purpose is." 3.2 (P1).What should be changed ? It would have been nice if all of the programs we had to review were on each computer. I wasn't able to review Intellitools (P7) What should be changed ? More individual tasks</td></tr>
</table>

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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.2 To what degree did course participants' acknowledge that the ATPD course goals and objectives were clearly defined and measureable according to high quality hybrid learning standards</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 3.3 Instructions are adequate for students (Q1IOIS;Q1EMOIS)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>3.3, 23/24=96%
3.4, 23/24=96%</td></tr>
<tr><td colspan="2">(P6) -'"Because it was a variety of programs he did allow us time to actually use the programs"</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td rowspan="2">N/A</td></tr>
<tr><td colspan="2">(P8)"I would have liked to have had more review time, just more time to decipher it learn it, just more time to go over the different kinds of assist. tech." (P4) "Sometimes directions weren't as clear as would have helped”</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td><td rowspan="5">Researcher’s Notes 3.3 Even though participants gave this course high marks for this standard (96%), most comments from both the Interview and End of Module Questions referenced a need for more instruction about various content areas that they were exposed to. In addition, time to review and practice learning activities was another area that participants commented upon. Many comments about SETT Process (M12,13) and the steps to complete the process. 3.4 Like 1.34, most participants (96%) felt the learning object. Were clearly stated, however during the course, especially at the beginning there was some confusion about what some of the course objectives were.</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">3.3 (P1) -"What in this module is still confusing? Tonight info. Was overwhelming for me. I think because I’m not proficient in jumping around to what I need to do." (P3) -"What could your instructor do to help you? I would like to be walked through the intellitech because the steps weren’t clear for the program." (P9) -"What could your instructor do to help you? Take a few moments to review each of the text-to-voice software before allowing students to experiment." (P3) - What in this module is still confusing? I’m not sure if I’m suppose to comment on the other groups discussions after I read them. No one else seems to know. 3.4 (P2) -"What could your instructor do to help you get more out of this module? We needed the information to complete the course" (6)3 REG"What in this module is still confusing?Our online assignments"</td></tr>
</table>

Guiding Question One Triangulation Worksheet

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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.2 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>HPDR Data</td></tr>
<tr><td colspan="2">Standard 3.5 No redundancy in tasks (Q1IOR;Q1EMOR)</td><td>21/24=87%</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>ATES Data</td></tr>
<tr><td colspan="2">N/A</td><td>N/A</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td rowspan="6">Researcher’s Comments
Although very little discussion addresses redundancy, 3 out of 12 participants graded down this standard. Continual online discussion was addressed in other standards in other questions.</td></tr>
<tr><td colspan="2">(P12) “Two or three people talking about the same thing is a little monotonous. “ (P9) “Sometimes there was enough discussions when someone would add, would give their input and you would need to be able to go back in and say oh I tried that or that was really good.” (P9) [The facilitator] kept telling us that our discussions needed to be a little meatier and lengthier and so on, but everybody got to a point where, what else could you say.”</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.2 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 4.1 Assessments are consist. With activities and measure the achievement of object. & learning outcomes (Q1IAMC; Q1EMAMC)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>4.1, 36/36=100%
4.2, 36/36=100%
4.3, 23/24= 96%</td></tr>
<tr><td colspan="2">N/A</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td>N/A</td></tr>
<tr><td colspan="2">4.3 (P2) Discussions framework, there was a problem receiving feedback. When we did an open discussion with everybody it was enormously overwhelming. So if it could be done a different way where you could get the feedback even one of the suggestions made was that even if it was only four individuals for your case study.</td><td rowspan="6">Researcher Notes 4.1 Not a lot of comment on assessments and their effectiveness in the course, however a self assessment mid term did have participants commenting both positive and negative about the process of repeatedly taking the mid term until they received 100% on the test. The end of course survey however reflected an anonymous belief (100%) that the assessments measured the achievement of the learning outcomes. 4.2 No Comments were recorded in either end of course interviews or during separate learning modules. 4.3 This was one area in assessment that participants felt not all feedback was given. Particularly during discussions. One individual, suggested feedback should have been given by both instructor and participants to different discussion questions and individual cases. This is reflected in the score from the Hybrid Rubric of 96% or 23/24 points. Also the feedback from the mid term exam brought up questions of why an individual had to take the whole test over if only one question was missed..</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">4.3 (P6) - What have you learned in this module that you found interesting? Immediate quiz results</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">4.1 (P3) “What could your instructor do to help you? It was hard to take a quiz to get a hundred because it made me reread parts I didn’t understand.” 4.3 (P11) “It would be better if you only had to fix those questions that you got right instead of going back and retaking the whole test.”</td></tr>
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<tr><td colspan="2">Guiding Subquestion 1.2 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2" rowspan="2">Standard 4.4 The types of assessments selected are appropriate for the mode of content delivery (Q1IAMCD;Q1EMAMCD) 4.5 The methods used for submitting assessments are appropriate and ensure the integrity of the student work. (Q1IAMIW;Q1EMAMIW) 4.6 Learners given opportunities to evaluate content & instructional design of different course modules (Q1IAMOE;Q1EMAMOE)</td><td></td></tr>
<tr><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td rowspan="8">Researcher’s Comments
4.4 Hybrid rubric did reflect 100% positive response and full points for appropriateness of the assessment based on mode of content delivery. 4.5 the Hybrid Rubric reflected a 100% satisfaction rate, with all points included in participants scores. 4.6 No Comments. Participants gave full credit 12 points out of 12, or 100% satisfaction on this standard.</td></tr>
<tr><td colspan="2">4.4(P4) Analyzing people's case studies and discussion boards. It ended up being very helpful 4.5, 4.6, No Comments</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">4.4 (P1) “What in this module is still confusing? Making sure I know how to do the necessary steps for the final project.’”(P6) “What in this module is still confusing or unclear? What our projects are and what they entail” (P6) What should be changed ?More midterm questions to focus on what is important in AT 4.5, 4.6 No Comments</td></tr>
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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.3 To what extent did course participants' acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 5.1 Hybrid design provides variety of learning activities to foster interaction (Q1ILISHD;Q1EMLISHD)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>36/36=100%</td></tr>
<tr><td colspan="2" rowspan="3">(P1) It was probably better that people helped me learn how to do the different things. (P2) -Sometimes it was the guy next to you who could answer and that was fine. (P12) -I think a lot of it was definitely more community than on my own. It was a community discussing and I was taking what I wanted. (P12) “I was able to get a lot of information from my group because they had a lot more teaching and learning experience”. (P11) Any concerns? no because we had the face to face and of course my colleagues they were there to talk to if I needed anything (P9) -Colleagues input plus Dave's input on how other people used those systems and programs different ways to tweak it and how we were able to learn while we were learning about that program (P6) -Id say both Id say the community in our smaller discussion groups, so we kind of knew everybody in our small group We also had our individual pacing we were allowed to do these assignment on our own time. (P5) -The longer the course went on the more I felt like part of a community. (P6) -I thought all of them were well planned out and I thought that most of them could be applied to any school setting and there were certain program that we talked about which I have applied to the seventh grade Reading (P11) I like the design; I like a human being to ask questions and it was better than both an online course and an in-class. I think hybrid is the way to go, I like the support here.”</td><td>ATES Data</td></tr>
<tr><td>Q5 =3.7 Somewhat agree that technology helped control the pace of learning more effectively.</td></tr>
<tr><td rowspan="7">Researcher’s Notes
Hybrid Rubric reflects 100% of participants felt the course offered a variety of learning activities that fostered interaction. Most comments were positive and reflected an agreement that the course fostered interaction and built a learning community. However a few comments suggested during the end of module discussion about course management issues.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">(P11) What have you learned in this module? It was good to interact with other people in the course and get their opinions on issues. (P12) What have you learned in this module? The discussion process is fantastic when people are involved. (P9) What have you learned in this module? Now that I figured out how to get on discussion, I am excited to read opinions and ideas of classmates.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">(P6) What should be changed ? Less discussion-too many to read (P2) What could your instructor do to help you? Allow us to closely observe the various AT items shared in class.(P9) What could your instructor do to help you? Share across groups-maybe just by posting one or two comments from other not the whole thread.</td></tr>
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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.3 To what extent did course participants' acknowledge that high quality hybrid-learning standards were reflected through meaningful learning and support within the ATPD course's instructional model?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 5.2 Instructor response & availability(Q1ILISIR;Q1EMLISIR)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>36/36=100%</td></tr>
<tr><td colspan="2" rowspan="5">(P3)Facilitator emailed me frequently. When I had a question I would email him. 'Facilitator emailed me 2 emails just today to make sure that he knows what I received and he knows what I gave him. He constantly kept contact. (P5) What you said or the question asked I never felt like I had a dumb question, When you have a teacher or a person that will give and you are not afraid to interact or speak.(P6) If anything went wrong [The facilitator] he was very quick to get back on the email to us, (P7) – [The facilitator] is so easy to ask questions and talk to and he doesn’t make you feel like a complete idiot because you don’t get it .(P11) [The facilitator] was always available when we needed him and he was willing to go over things and spend more time on things.</td><td>ATES Data</td></tr>
<tr><td rowspan="4">Q9 = 2.5 agree nor disagree that this hybrid course took away from time or support from the course facilitator.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">N/A</td><td rowspan="4">Researcher’s Comments
Overwhelming response was positive for facilitator response and availability. In some cases the facilitator went far beyond the call of duty. This was a major theme throughout the interview responses. Not so much in the end of module discussions. More comments on how the course and the facilitator could be improved. However positive responses were across the board with all participants giving the facilitator high marks and a 100% satisfaction rating (per Hybrid Rubric)</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">(P11) What should be changed ? It is important for us to take the time to be shown how to use and do various things to complete this course.</td></tr>
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<tr><td colspan="2">Standard 5.3 Hybrid design provides clear artic. Path for student & teacher interaction (Q1ILISI;Q1EMLISI)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>23/24=96%</td></tr>
<tr><td colspan="2">N/A</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td rowspan="5">Q1 - 4.3. This confirmed that participants believed that they agreed that Desire2Learn helped them learn course content. Q2 - 3.5 participants somewhat agreed that powerpoint helped them learn more about the course content.

Researcher’s Comments
Although 1.53 reflects some of the frustrations participants experienced, related to course management. Not so much the hybrid path. The younger participants seemed to be impatient and did not like to wait for others, while older and more experienced expected more time for follow-up</td></tr>
<tr><td colspan="2">(P2) 'People waited until Sunday night to post stuff and frankly [The facilitator] did threaten at one point, but he just said please do it. (P4) At times it [instruction through the online portion of the ATPD course] was a little hard to follow and sometimes I didn't really know what was expected so I had to like kind of collaborate with other people to get a definitive answer on what was going on (P6) When getting from 1st task to the 2nd. I really feel there was a better way to use the time.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Positive Comments</td></tr>
<tr><td colspan="2">(P1) What have you learned in this module? I liked having the hands-on experiences of the different AT devices</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">(P10) What should be changed ? I sometimes have to wait for some members of the group to catch up.(P7) What could your instructor do to help you get more out of this module? Have a hard time concentrating with the extra talking going on. 1(P14) 'What could your instructor do? Maintain noise level. (P3) What in this module is still confusing? Some of the technology needs to have clearer direction for younger students to understand</td></tr>
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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.3 To what extent did course participants' acknowledge that high quality hybrid-learning standards were reflected through meaningful learning and support within the ATPD course's instructional model?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 5.4 Course provides information obtaining information,, resources & academic support (Q1IILISIR;Q1EMILISIR) 5.5 Tutorials are available to provide support related to research, writing, technology, etc.Q1ILIST, Q1EMLIST</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td></td><td>5.4, 24/24=100%
5.5, 12/12=100%</td></tr>
<tr><td colspan="2" rowspan="7">5.4 (P9) We were able to discuss questions, discuss new information face to face with the instructor and colleagues.(P4) I like the design, I like a human being to ask questions and it was better than both an online course and an in-class. 'I think hybrid is the way to go, I liked the support there. (P11)Some people don’t like to sit in class so its nice you don’t have to go two or three times a week.(P12) We had a lot of the discussions where it was just think about this question. I think that was the first one that everybody participates in, so the more participation by the group I think the better and the more valid and the more helpful those discussions (P9) “We had a multitude of resources available for us to explore and to learn” (P3) “ There were plenty of resources.” 5.5 (P5) “ I used the tutorials at the beginning.”</td><td>ATES Data</td></tr>
<tr><td>N/A</td></tr>
<tr><td rowspan="6">Researcher’s Comments
5.4 Most participants provided positive comments about the support and information obtained through the hybrid course design. They gave full points or a 100% satisfaction rate. However, there were some questions again about the discussions that were conducted online. 5.5 Not many comments during interviews or in the End of Module Questions. However, as was noted in 1.3 and as a comment on the hybrid rubric. a 100% satisfaction rate was given for this standard.</td></tr>
<tr><td>Qualitative Data</td><td></td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td></td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td></td></tr>
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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.4 To what extent did course participants acknowledge that course resources and materials were comprehensive and reflected high quality-hybrid learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 6.1 Course materials have depth in content and are sufficiently comprehensive (Q11RMD, Q1EMRMD)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) - Pos Comments</td><td>36/36=100%</td></tr>
<tr><td colspan="2">(P2) -He would send you someplace & it would have links. I would start looking at the links and that was kind of interesting.. It allowed you to find things that you didn’t know existed.(P7) Many examples of materials and activities in the course “ (P1) The articles were easy to read and gave a variety of suggestions for Assistive Technology</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td>N/A</td></tr>
<tr><td colspan="2">(P5) Hard to relate in case studies because of age groups and information was difficult</td><td rowspan="5">Researcher’s Comments
The Hybrid Rubric reflects a satisfaction score of 100% for course participants. Most were satisfied with content some discussion about discussion topics</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="2">(P3) “ What could your instructor do to help you? Very interesting articles with great discussions.(P10) “What should be changed ?” I would love for the video to be viewed in class, because the f2f discussion would have been amazing</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg.. Comments</td></tr>
<tr><td colspan="2">(P6) What could your instructor do to help you? More tasks, less explanations</td></tr>
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<tr><td colspan="2">Guiding Subquestion 1.4 To what extent did course participants acknowledge that course resources and materials were comprehensive and reflected high quality-hybrid learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 6.2 Resources and materials are readily accessible to and usable by the learners (Q1IRMA, Q1EMRMA)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>24/24=100%</td></tr>
<tr><td colspan="2" rowspan="2">(P7) It was offered right here and it was easy for me and it was a convenient time right after school, so it worked (P2) 'It is where you have to access information, on the Internet. It doesn’t make sense to do it another way. (P9) I thought we had a very good variety of resources to explore.</td><td>ATES Data</td></tr>
<tr><td>N/A</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td rowspan="6">Researcher’s Comments
Participants gave the maximum number of points for this standard. Comments were very complementary, however a few older teachers requested that more resources in the form of support would be available</td></tr>
<tr><td colspan="2">(P8) “I would like to have more time reviewing and maybe some kind of organization or a hardcopy or handout of the different kinds of assistive technology, something that shows all the different stuff that is out there</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Positive Comments</td></tr>
<tr><td colspan="2">(P1) What have you learned in this module? The article was easy to read and gave a variety of suggestions for Assistive Technology</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Positive Comments</td></tr>
<tr><td colspan="2">(P1) What should be changed ? It would have been nice to review all the programs. (P5) What could your instructor do to help you? An outline so I can fill in the important details without having to write too much.</td></tr>
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<tr><td colspan="2">Guiding Subquestion 1.4 To what extent did course participants acknowledge that course resources and materials were comprehensive and reflected high quality-hybrid learning standards?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 6.3 All instructional materials are presented in a format appropriate to the mode of content delivery (Q11RMCD, Q1EMRMCD)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td><td>12/12=100%</td></tr>
<tr><td colspan="2" rowspan="2">(P2) 'Instructional materials are presented in a format appropriate to the mode of content (P9) 'I just enjoyed it much more than textbooks I felt like it wasn’t as restrictive and it probably just a sign of the times but it was a little more motivating and engaging than a typical textbook kind of lecture course. (P7)'The articles are available and we would have projects or assignment. I would definitely recommend it”</td><td>ATES</td></tr>
<tr><td>N/A</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td><td rowspan="6">Researcher’s Comments
Participants gave a satisfaction score of 100%. The majority felt that the instructional materials fit the format that they were delivered through.</td></tr>
<tr><td colspan="2">(P8) I need a hard copy of what we read.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">(P9) What could your instructor do to help you? It was very helpful to have resources provided for this module</td></tr>
</table>

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<tr><td colspan="2">Guiding Subquestion 1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology, fostered learning & interactivity?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 7.1 Use of tools & media enhance learner interactivity & guides active learning (Q1ICTIDI;Q1EMCTIDI)</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td><td>36/36=100%</td></tr>
<tr><td colspan="2" rowspan="6">(P12) 'I am not very good about motivating myself if I was just out there solo, I don’t think I would have gotten as much of it, but since it was hybrid I was able to have motivation. (P9) Using desire2learn I felt comfortable. A couple of times there were glitches but year I thought it was very accommodating for us. (P8) 'If anything I learn how to do a lot of things that I had just not done, because I had to do a lot of like attachments and sending emails. (P8) 'I thought the Desire2learn platform was pretty good. I think it would be much easier to understand if I took another class. (P7) I am not really big on computers and at the beginning I was very intimated to take the class but he handled it really well and he never made me feel uncomfortable. (P3) 'Like I am a novice, I have my computer at home and use it for emails and papers for school how to make a chart, I wasn’t knowledgeable to do the right click and other stuff. (P1) It [course technology] made me try to become more fluent in using the computer and its different features that it has.</td><td>ATES Data</td></tr>
<tr><td>Q8. 4.0 Participants agree that they were better able to develop my specific skill because of technology used in the course</td></tr>
<tr><td rowspan="5">Researcher’s Comments
Participants gave maximum points for this standard, or a 100% satisfaction rating. All comments from the Interview were positive. It was interesting that most of the veteran teachers commented on this standard in a positive way.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2" rowspan="3">Guiding Subquestion 1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology, fostered learning & interactivity?</td><td>Quantitative Data</td></tr>
<tr><td>HPDR Data</td></tr>
<tr><td>7.2, 35/36= 97
7.3, 35/36= 97
7.8, 11/12=92%</td></tr>
<tr><td colspan="2" rowspan="2">Standard 7.2 Technologies easily downloadable (Q1ICTIDD;Q1EMCTIDD) 7.3 Course links operational (Q1ICTIDL;Q1EMCTIDL) 7.8 Horizontal scrolling (Q1ICTID;Q1EMCTID</td><td>ATES Data</td></tr>
<tr><td>N/A</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td><td rowspan="8">Researcher’s Comments
7.2 One participant felt that the instructor did not provide the tech standards prior to the course, and therefore she was unable to do some of the work at home because of the age of her computer. Tech standards were discussed and posted on the Desire2Learn website and through the syllabus. 7.3 Most participants felt that links were satisfactorily available and operational during the course. There were times when something didn’t work, but the effort made by the facilitator to correct the problem outweighed the inaccessibility and the inconvenience of the problem 7.8 Only one comment was recorded through the interview process about the scrolling option in D2L and is reflected in the HPDR score</td></tr>
<tr><td colspan="2">7.2 (P8)The only thing with my computer the video I couldn’t get the video part to come up that's because I have dialed up, that was the only thing that was frustrating me was because it would show a little bit then it would somehow would stop.(P7) There were a couple things here and there that we weren’t able to get to when we were supposed to and that was difficult and then we had a whole week to wait before we had to figure all that our but other than that 7.3 (P2) There were minor glitches, but that could happen in a regular classroom (P5) There were times that you couldn't get on it but I don’t know if it was because for my computer but overall it was up and running 7.8 N/A</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td></tr>
<tr><td colspan="2">(P6) Some links would be hard to maneuver because the scroll bars would only let you go so far and its like trying to read a page with only half a window.”</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Positive Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Positive Comments</td></tr>
<tr><td colspan="2">7.2 (P1) What in this module is still confusing? Loading programs I don’t think it is hard, I just need to learn the steps. (P10) What could your instructor do to help you? I had trouble accessing the video, but Dave brought me a copy.</td></tr>
</table>

Guiding Question One Triangulation Worksheet

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<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2" rowspan="2">Guiding Subquestion 1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology, fostered learning & interactivity?</td><td>Quantitative Data</td></tr>
<tr><td>HPDR Data
7.4 24/24=100%</td></tr>
<tr><td colspan="2">Standard 7.4 Technologies compatible for hybrid learning (Q2ICTIDC;Q1EMCTIDC)</td><td></td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos.. Comments</td><td>ATES Data</td></tr>
<tr><td colspan="2">N/A</td><td>Q 10 4.3 Participants, agreed the hybrid approach taken in the course allowed them to be better able to juggle their course work with other responsibilities</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td><td rowspan="6">Researcher’s Comments
Participants gave this standard the maximum points. Only one or two comments were made about the technologies and the relation to hybrid learning.</td></tr>
<tr><td colspan="2">(P1) I have to be a hands on type of learner, that would have to be more concrete in my mind (P6) I thought the hybrid design was a good way to take class because it allowed us individual learning time a s well as group reflection and presentation time.” (P9) I liked the idea of having the hybrid course because I only needed to be here and away from my family one night a week, and the other time I could be at home or I could work online at my leisure.”</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">(P9) 'What have you learned in this module? How to send attachments and see the same info on my home PC</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2" rowspan="2">Guiding Subquestion 1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology, fostered learning & interactivity?</td><td>Quantitative Data</td></tr>
<tr><td>HPDR Data</td></tr>
<tr><td colspan="2">Standard 7.5 Modules online are consistent (Q1ICTIDM;Q1EMCTIDM)
7.6 Design convention for hyperlinks (Q1ICTIDH;Q1EMCTIDH)
7.7 Fonts/colors (Q1ICTIDFC;Q1EMCTIDFC)</td><td>7.5 24/24=100%
7.6 24/24=100%
7.7 12/12=100%</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td><td>ATES Data</td></tr>
<tr><td colspan="2"></td><td>N/A</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td><td rowspan="6">Researcher’s Comments
7.5 No comments were given through the Interview process or the end of module questions about the consistency of the online modules. However, on the Hybrid Rubric a 100% satisfaction rating was given with a total of 24 points.
7.6 No comments were given through the Interview process or the end of module questions about the consistency of the online modules. However, on the Hybrid Rubric a 100% satisfaction rating was given with a total of 24 points.
7.7 No comments were given through the Interview process or the end of module questions about the consistency of the online modules. However, on the Hybrid Rubric a 100% satisfaction rating was given with a total of 12 points.</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2"></td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">(5) 14 SPED What should be changed in this module? The screen needs to be clearer</td></tr>
</table>

Guiding Question One Triangulation Worksheet

<table>
<tr><td colspan="3">Question 1 - To what extent does this professional development course exemplify the characteristics of a high quality hybrid-learning environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology, fostered learning & interactivity?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">Standard 8.1, 8.2, 8.3 , There is evidence of some effort to recognize the importance of ADA requirements (Q1IADR;Q1EMADR)8.2</td><td>HPDR Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td><td>8.1 36/36= 100%
8.2 23/24= 96%
8.3 12/12=100%</td></tr>
<tr><td colspan="2">(P11). We talked about the QAC website and its ease to use for a disable person</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td><td rowspan="2">N/A</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td><td rowspan="4">Researcher’s Comments
Although one comment was made about the practice of reviewing other sites for ADA, no comments were made about the D2L and its accessibility for disabled persons.</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question Two Triangulation Worksheet

Question 2 Will K-12 teachers develop an increase in understandings of course after completing a hybrid-based professional development course?	
Subquestion 2.1 Did the disaggregate group of participants demonstrate an increase in course content knowledge?	**Quantitative Data**
MCC: (Q2IEST-1.1, Q2EMEST-1.1; Q2IESE – 1.2, Q2EMESE-1.2)	ATES Data
Quantitative Data *Pre-Test Post-Test Results for Disaggregate Group* Mean Difference – Pre – 54.4 – Post – 76.6; 21.250 +=40% increase	Quest. 13=4.3 participants agreed they felt more confident about using Assistive Technology
Pre-Test Post – Test Results for more than 10 years teaching Mean Difference Pre – 56.4 Post 75.7 = 34% *Pre-Test Post-Test Results for less than 10 years teaching* Mean Difference Pre – 53 Post 75 = 42%	**Researcher's Comments** Although special educators had a higher pre test they had one of the lowest% of increase over 10 years also were the lowest. Most special educators are over 10 years.
Pre-Test Post-Test Results for regular education teachers Mean Difference Pre – 52.5 Post 73.1 = 39% increase	
Pre-Test Post-Test Results for special education teachers Mean Difference Pre – 52.5 Post 73.1 = 39% increase	
Pre-Test Post – Test Results for more than 10 years teaching Mean Difference Pre – 56.4 Post 75.7 = 34%	

Guiding Question Two Triangulation Worksheet

Question 2 Will K-12 teachers develop an increase in understandings of course after completing a hybrid-based professional development course?	
Subquestion 2.2 Did participants indicate a significant increase in the building of course content knowledge at the confidence interval of p>.05.	**Quantitative Data**
Quantitative Data	**ATES Data**
One Sample T-Test for Disaggregate Group T(21)=4.97, p=.00 (two-tailed) df=11==indicated a significant increase	N/A
One Sample T-Test for group less than 10 years T(22)=5.41, p=.006(two-tailed)df=4=indicated a significant increase	**Researcher's Comments** All participant groups demonstrated a significant difference except for Special Educators. May be due to a higher level of prior knowledge.
One Sample T-Test for group more than 10 years T(21)=2.95, p=.026(two-tailed) df=6, indicated a significant increase	
One Sample T-Test for regular curriculum educators T(21)=3.89, p=.006(two-tailed) df=7, indicated a significant increase	
One Sample T-Test for Special Educators T(22)=2.71, p=.07(two-tailed) df=3, indicated no significant increase	

Guiding Question Two Triangulation Worksheet

<table>
<tr><td colspan="3">Question 2 Will K-12 teachers develop an increase in understandings of course after completing a hybrid-based professional development course?</td></tr>
<tr><td colspan="2" rowspan="2">Guided Subquestion 2.3 Did participants indicates that course technology assisted in building of course content knowledge?</td><td>Quantitative Data</td></tr>
<tr><td>ATES Data</td></tr>
<tr><td colspan="2">MCC (Q2IFH-2.1, Q2EMFH-2.1; Q2IFS-2.2, Q2EMFS-2.2; Q2IFT-2.3, Q2EMFT-2.3)</td><td rowspan="4">Question 1 = 4.3 participants agreed the CMS, Desire 2Learn helped them learn more about the ATPD course content knowledge.
Question 2 = 3.6 participants somewhat agreed the course technology helped them learn more abut the ATPD course content knowledge.
Question 3 = 4.5 indicated that teachers agreed they were not at a disadvantage learning in the ATPD course because of a lack of knowledge pertaining to the CMS
Question 4 = 4.3 indicated that teachers agreed they were not at a disadvantage learning with other course technology software and hardware.
Question 5= 3.7 indicated that teachers somewhat agreed they were able to control the pace of learning more effectively because of the course technology.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td></tr>
<tr><td colspan="2">(P1) "It made me become more fluent using the computer and its different features that it has." (P8) "If anything I learned how to do a lot of things that I had just not done, because I had to do a lot of like attachments and sending emails. (P3) “Inspiration seems to be a good learning tool for students." (P7) “learned how to do a power point." (P3)" I didn’t know you could attach a microphone to your computer and the computer types what it heard." (P7) "There was the voice to text, he had us actually do it and that was very helpful."</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td><td rowspan="7">Researcher’s Comments
Participants felt the CMS and course software was appropriate and did assist them in building of course content knowledge. However, some glitches with the software and confusion are recorded</td></tr>
<tr><td colspan="2">(P5) “There were times that you couldn’t get on it [the computer]. (P9) [The facilitator] needs to repeat a demonstration when necessary.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">(P3) I found that the Readplease 2003 was a useful tool.” (P12) I loved Dragon Naturally Speaking and would like more exploration time with it.” (P9) [I enjoyed] practicing with the various assistive technology equipment. I may not use the high end of assistive technology with my population, [but] it is fascinating to know what resources are available.”</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">(P6) “I had a very difficult time using the e-reader, I think I would need a tutorial on software." (P1) “[I am still confused about] how to save a PowerPoint. We need more info at beginning of class about tech needs.”</td></tr>
</table>

Guiding Question Two Triangulation Worksheet

<table>
<tr><td colspan="3">Question 2 Will K-12 teachers develop an increase in understandings of course after completing a hybrid-based professional development course?</td></tr>
<tr><td colspan="2" rowspan="2">Guiding Subquestion 2.4 Did participants indicate that the course's hybrid-based learning environment assisted them in building course content knowledge?</td><td>Quantitative Data</td></tr>
<tr><td>ATES Data</td></tr>
<tr><td colspan="2">MCC Q2IIDC-3.1, Q2IIDA-3.2, Q2EMDC-3.1, Q2EMDA-3.2</td><td rowspan="6">Question 10 = 4.3 indicated participants agreed, the hybrid framework of the ATPD course assisted individuals juggle course work with other personal and professional duties.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Pos. Comments</td></tr>
<tr><td colspan="2">(P8) "It was very helpful to have resources provided for this module. It is enjoyable other articles and references relating to similar topics." (P3) "I felt the step by step process was very useful." (P9) "Online group discussion helps with subject content because some people are more familiar with certain assistive technology tools and have more experience than others. These people were able to make some good recommendations, then we practices dome of the assistive technology keeping the suggestions in mind." (P12) "I liked that it [ATPD course] wasn't just online, we did have face to face so you were not totally just left out there on your own. Since it was a hybrid I was able to have motivation with the face to face and then apply the content on my own."</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td><td rowspan="4">Researcher's Comments
Most participants felt the hybrid-based instructional framework assisted in the learning of course content. It also helped them juggle personal and professional duties..</td></tr>
<tr><td colspan="2">(P8) I thought it [hybrid-based instruction] was pretty good. It was very effective. I liked being able to work online, pulling-up those articles and reading them at my own pace instead of someone lecturing." (P9) We were able to adapt that particular learning to what we are doing so it was more effective."</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question Two Triangulation Worksheet

<table>
<tr><td colspan="3">Question 2 - Will K-12 teachers develop an increase in understandings of course content after completing a hybrid-based professional development course?</td></tr>
<tr><td colspan="2">Guiding Subquestion 2.5 Did participants indicate that the course's facilitator assisted in their building of course content knowledge?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">MCC Q2IFAC-4.1, Q2EMFAC-4.1; Q2IFAA-4.2, Q2EMFAA-4.2</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td rowspan="2">Question 9 = 2.6 indicated participants neither agreed nor disagreed that the hybrid based course made them feel less connected with the instructor and with other students in the course</td></tr>
<tr><td colspan="2">(P3) I felt the step by step process was very useful. I do not think there is anything I could have done. (P9) He would spend time initially reviewing the questions or if he didn't spend a lot of time on a particular assistive tech tool he would and some one would like ask for more information about it." (P3) He [the facilitator] constantly kept in contact with us. He read comments that we had and then he would email you if you have a question about your case study or something that you had written, so I knew all week long he was checking the computer because he emailed me like on Wednesday." (P5) "My instructor has been wonderful."</td></tr>
<tr><td colspan="2"></td><td>Researcher's Comments :
All participants applauded the assistance and concern the facilitator provided during the course. However, there was confusion with students about course management and some content areas</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td></td></tr>
<tr><td colspan="2">(P11) The instructions on how to fill out the SETT process and technology could have been completed before class, not during the course."</td><td></td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos. Comments</td><td></td></tr>
<tr><td colspan="2"></td><td></td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td><td></td></tr>
<tr><td colspan="2">(P5) [The facilitator needs to] take the time [for participants] to be shown how to use and do various things." (P11) We need more time with each program to figure out how it works." (P7) "
I am not too sure where to post the SETT forms." (P7) "I don't really think anything needs to be changed but if I had the opportunity I would like another night to go over everything. I like repetition" (P9) Repeat a demonstration as necessary (P11) "More time with each program to figure out how it works."</td><td></td></tr>
</table>

Guiding Question Three Triangulation Worksheet

<table>
<tr><td colspan="3">Guiding Question 3: How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional practice?</td></tr>
<tr><td colspan="2">Guiding Subquestion 3.1 Was there any evidence that participants had transferred course content knowledge into their instructional practice?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">MCC: Q3ITPI, Q3EMTPI, Q3EMTPU, Q3EMATI-2.2, Q3EMTIP-1.1, Q3ITIP-1.1, Q3IATI-2.2, Q3IRPC-3.1</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td rowspan="2">Question 12 – 4.4
Indicated they agreed they were able to infuse some of these content activities into their own classroom.
Question 13 – 4.3 indicated participants agreed they felt more confident using assistive technology with students
Question 14 – 4.42 indicated the participants agreed the ATPD course helped them adapt teaching strategies and activities in order to effectively reach the diverse learning styles of classroom students.</td></tr>
<tr><td colspan="2">(P1) I could easily use Writing with symbols 2000 with several students. Sentence strips/picture symbols could be developed to help children communicate with others. (P11) We do use Writing with symbols 2000 a lot. That is the only thing we have used except for of course the Low Tech thing which is a calculator. 'With the Writing with symbols 2000 we do different things, we do things, we did books in the beginning, now we are doing little sentences with the words so the children can read them also so that they can copy them (P12) I will be doing a picture schedule this year where I've never done that. I always just had the words and now I have actual pictures for those who understand the pictures more than the words. (P2) Well yes, I mean I use text readers and I'm doing more cutting and pasting with my guys with the text reader and the cutting and pasting so they have a product. (P2) We use the text reader and we use work prediction software and he was able to produce quite a bit more and when he is left alone to his own devices to write it isn't much and he certainly demonstrated to me that he understood the content when he read. (P11) 'I think there is more confidence with those children that really weren't understanding the letter sounds and I see more confidence with the connection to the pictures and even more confidence in reading the sentences with the pictures. (P9) Yes, I have been able to use communication symbols to help facilitate communication in children and also to develop simplified say books, reading sentences to help a child to read. (P8) I would probably use the Writing with Symbols program. Many first graders have pictures to help them read especially directions. (P3) We use the text reader and we use work prediction software and he was able to produce quite a bit more and when he is left alone to his own devices to write it isn't much and he certainly demonstrated to me that he understood the content when he read. (P10) 'I already showed my classes the Inspiration software today. They were so excited jumped quickly onto the computers. They used Inspirations for their research papers. (P12) They thought it was just games for the first grade. That is good – they shouldn't know that this is instructional because if it's instructional it's too much work and they are not interested." (P2) He was very pleased and he was able to do it very quickly - that was really what impressed me and that was the seventh graders."</td></tr>
<tr><td colspan="2">Researcher's Comments
Predominately positive indication of how they would like to and how they actually are using course content. Even the SETT process is thought to be a valuable program in their classes.</td></tr>
<tr><td>Qualitative Data</td><td colspan="2">Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="3">(P3) I wish I had taken it in the fall, and then I could have used it all year. (P9) I just wasn't able to utilize it as I would have, as if this was a fall offered course.</td></tr>
<tr><td>Qualitative Data</td><td colspan="2">End of Learning Modules Questions (ELMQ) Pos. Comments</td></tr>
<tr><td colspan="3">(P3) Use SETT form to help organize student concerns for IEP meetings (P8) Use the SETT questions when thinking about referring students for AT (P2) I have been including more technological assist IEP for a high school bound student with limited reading and writing (P8) Use the SETT questions when thinking about referring students for AT. (P4)"I thought the Clicker4 software could be a great help to my class, especially in a vocabulary situation."</td></tr>
<tr><td>Qualitative Data</td><td colspan="2">End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="3">N/A</td></tr>
</table>

Guiding Question Three Triangulation Worksheet

<table>
<tr><td colspan="3">Guiding Question 3: How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional practice?</td></tr>
<tr><td colspan="2">Guiding Subquestion 3.2 Was there any evidence that participants transferred course information to other teaching professionals?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">MCC: Q3ITOTI-1.4, Q3EMTOTI-1.4; Q3IRPC-3.1,</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos Comments</td><td rowspan="5">Question 13 – 4.3 indicated participants agreed they felt more confident using assistive technology with students Question 14 – 4.42 indicated the participants agreed the ATPD course helped them adapt teaching strategies and activities in order to effectively reach the diverse learning styles of classroom students. .Question 15 – 4.0 indicated participants agreed they felt prepared to assist other teachers to transfer ATPD course content knowledge into classroom practices.</td></tr>
<tr><td colspan="2">(P2) 'We are starting to look at , we are really spending much more time looking at it on the IEP at the IEP process level, so we are looking at kids for assistive technology (P6) Yes, I have talked to a special educator in my school about the Inspiration software as graphic organizers for students. (P9) We have shared how we are using this information. How we can implement it with different children, but again it was at the end of the year. (P4) 'I think two other teammates have gone ahead and made the push to go on and get on the Kursweil (P5) Yes, especially special educators. I would co-teach here, what knowledge and accomplishments especially for our huge classes of 33 and 34. (P9) 'Yes, one of the teachers is also implementing picture communication symbols in her classroom to label items and things for children. (P11) “Yes, we did with our kindergarten team because Joan and I and I am sure the word spread around the school.”</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">(P9) I don’t think only because this class got over at the very end of the school year.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Positive Comments</td></tr>
<tr><td colspan="2">(P8) The lists in the articles may be good to share with other teachers to help in the school to realize what assistive technology is and that is can be very inexpensive expensive (P12) - Classroom instruction might be tough, but it might be nice to have a teacher discussion board.</td><td rowspan="3">Researcher’s Comments
5 out of 11 (45%) of participants indicated they had transferred course content knowledge to other teachers. Main reason was lack of time at the end of the school year.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question Four Triangulation Worksheet

<table>
<tr><td colspan="3">Guiding Question Four Through the interview process, how do participants evaluate and describe the attributes, benefits, and problems they experienced learning within a hybrid-based environment?</td></tr>
<tr><td colspan="2" rowspan="2">Guiding Subquestion 4.1 During the interview process how did course participants describe the positive attributes of a high quality hybrid learning environment?</td><td>Quantitative Data</td></tr>
<tr><td>ATES Data</td></tr>
<tr><td colspan="2">MCC: Q4IACP-1.1,Q4IAC-1.2, Q4IAFF-1.3, Q4IALE-1.4, Q4IAP-1.5, Q4IAA-1.6, Q4IAS-1.7, Q4IASRE-1.8, Q4IAEAR-1.9, Q4IASDL-1.10, Q4IATE-1.11, Q4IAHD-1.12, Q4IAA-1.13</td><td>N/A
.</td></tr>
<tr><td>Qualitative Data</td><td colspan="2">Interview (IGQ) – Pos. Comments</td></tr>
<tr><td colspan="3">P7) The facilitator taught us about each of the different things we can get or do online or that were accessible. (P8) I thought the articles were good; I enjoyed the [resource] it and I learned a lot from it.” (P1) Probably what was most effective for me was using Writing with Symbols 2000 and making different work sheets that might be applicable for each individual child that I worked with, whether it would be speech or language.” (P8)“Looking at the different levels and everyone complementing other people, you hear people saying that was a great idea and that’s good if you get good people it could be real positive. (P9) Yes, I have been able to develop simplified say books, reading sentences to help a child to read.” (P11) I thought it was nice to hear different ideas especially from the fact that we were not all elementary teachers; the middle school teachers would have a different insight of what we thought, so that was interesting.” (P12) With it being a hybrid, I knew who to talk to, and I knew all my classmates were reading the post so I could always ask questions and find out the answers. (P11) Yes, Definitely, I could get help not only from the facilitator, but from our peers. This was evident during discussions, because if we didn’t know how to do something, like post, somebody in the discussion would ask and then somebody else would help. There was a lot of support there.” (P7) He was excellent. He really goes out of his way to answer any question and I am not really big on computers. Also, I felt at the very beginning I was very intimidating to take the class but he handled it really well and he never made me feel uncomfortable and by the end of it I felt completely 1005 better. (P9) I felt like the Desire2Learn program was very easy. It was very sort of self-taught, but just simplistic enough that I could go in, I felt comfortable using it anytime. It was very accommodating for us little bit less than, you know, techie people.” (P2) I felt like it offered two venues, one that you could post something and say, what are you talking about? But the other was because of the way it was setup. There were often ways you can go off and discover those things. (P6) I think that the instruction in the first class did cover how to use Desire2Learn, so overall I thought it was a very easy program to get use to.” (P2) I thin we did it did really turn into a community. I talked to people about things that I hadn’t spoken to them about before even when I wasn’t at the course.” (P8) Looking at different levels and everyone complimenting other people, you hear people saying that was a great idea and that’s good if you get good people and their discussing things it could be real positive. (P9) I felt we were a community. It was a very good group of people. Very good pulling everybody together and making everybody feel comfortable and welcomed.”</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td><td rowspan="6">Researcher’s Notes
Relevancy of content, Support- Facilitator, CMS and Peers. Community, and Safe Environment.</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question Four Triangulation Worksheet

<table>
<tr><td colspan="3">Guiding Question Four - Through the interview process, how do participants evaluate and describe the attributes, benefits, and problems they experienced learning within a hybrid-based environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 4.2 During the interview process, to what extent did participants express specific concerns about learning in a hybrid-based instructional environment?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">MCC: Q4ICCP-2.1,Q4ICC-2.2, Q4ICFF-2.3, Q4ICLE-2.4, Q4ICP-2.5, Q4ICA-2.6, Q4ICS-2.7, Q4ISCRE-2.8, Q4ICEAR-2.9, Q4ICSDL-2.10, Q4ICTE-2.11, Q4ICHD-2.12, Q4ICA-2.13</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos.Comments</td><td>N/A</td></tr>
<tr><td colspan="2">N/A</td><td rowspan="8">Researcher’s Comments
Concerns
Online instructional activities.
Course Review Time.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">(P2) “To an extent the discussion groups were okay. We all talked about the fact that you didn’t get all the feedback. But when you got all the feedback it was overwhelming.” (P7)Now at the end it was confusing when we had everybody on there because I kind of got lost like whose am I looking at now and that kind of thing.” (P12) At times it was a little hard to follow and sometimes I didn’t really know what was expected so I had to like kind o collaborate with other people to get a definitive answer on what was going on.” (P4) Furthermore, participants identified the lack of direction or management of the online course learning modules as a concern. (P4) Sometimes directions weren’t as clear as would have helped.” (P2)“He could certainly, on a regular basis, reminded people and also put it in his rubric. (P9) “The discussions going back and forth were the biggest hang-up for me as well as the class. We just didn’t have enough information to keep it going.”(P12) We need more information about some of the technology, about some of the case studies that we did. I needed more information about the students, more information about what was available to help those students that’s the whole point of the case studies and the discussions of the case studies.” (P8) I would like more time reviewing course information and some kind of organization or a hard copy or handout of the different kinds of assistive technology.” (P9) I think I do better when I can go back on my own and take the time to process it and then review it. However, the time to do that was not available.</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

Guiding Question Four Triangulation Worksheet

<table>
<tr><td colspan="3">Guiding Question Four - Through the interview process, how do participants evaluate and describe the attributes, benefits, and problems they experienced learning within a hybrid-based environment?</td></tr>
<tr><td colspan="2">Guiding Subquestion 4.3 During the interview process, what perceptions did participants express about hybrid-based learning and what recommendations did individuals suggest about professional development delivered through a hybrid-based environment?</td><td>Quantitative Data</td></tr>
<tr><td colspan="2">MCC: Q4IRHD-4.1, Q4IROT-4.2, Q4IRE-4.3, Q4IRI-4.4</td><td>ATES Data</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Pos. Comments</td><td>N/C</td></tr>
<tr><td colspan="2">(P4) I would describe it as a little bit of both, you know online and classroom and a lot of times I thought it was a community kind of atmosphere and some times it was independent.” (P5) Pertinent information is received during the classroom time that can be used during the week at the online portion which is an extension of the face to face class. (P1)I would recommend it. It gave me the opportunity to learn and be more efficient on the computer. (P12) “It definitely has caused me to want to take more technology and learn more about assistive technology.” (P7) I think a hybrid-learning course is an easier way to take a class for professional training. It allows a person to get activities done at his or her own pace.” (P8) I like the idea of taking a class that is not drawn out everyday. You can do a lot of it online after school or at home during the nighttime or weekends.” (P3) I like the way it was set up; I like that there still someone to guide you if you have a question you can come back and ask them but your are still independent to work at your own speed and still learn with all the tutorial that he had. (P8) Yes, I think every teacher needs to take it, they don’t teach you this in college, new teacher don’t know any of this stuff maybe they do but I didn’t know half of this stuff. (P11) Yes I thought it was every informative and I thin it was very good of us to know what is out there that is available to these children that are having difficulties, in ways we can help them because I didn’t know a lot about some of this stuff so its nice to know about it, in case I have a child in my classroom that would need it.” (P12) It definitely has caused me to want to take more technology and learn more about assistive technology.” (P11) I would definitely recommend it, since I took a completely online class I think that hybrid is the way to go, I liked the support there. Plus some people don’t like to sit in class so its nice you don’t have to go two or three times a week. I liked it, I liked the fact that we had to face to face to have those explanations of things we didn’t understand through out the week but I also like the online part of it too because you had the luxury of doing it from your home but you were also interacting with other people in the computer so you get their input and their ideas as well as putting in your own, so I liked other aspects of it.</td><td rowspan="7">Researcher’s Comments
100% recommend the ATPD course, 100% would take another Hybrid course if offered.</td></tr>
<tr><td>Qualitative Data</td><td>Interview (IGQ) – Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Pos Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
<tr><td>Qualitative Data</td><td>End of Learning Modules Questions (ELMQ) Neg. Comments</td></tr>
<tr><td colspan="2">N/A</td></tr>
</table>

APPENDIX L – Decision Making Matrix (DMM)

Decision Making Matrix

GQ 1 - To what extent does the ATPD course exemplify the characteristics of a high quality hybrid-learning environment?		
Guiding Sub Questions	Measurement/Scale	Definition of Behavior
GSQ1.1 To what extent did course participants acknowledge that the ATPD course's overview and introduction meets high quality hybrid-learning standards? <u>Data Sources</u> 1. The Hybrid Professional Development Rubric (HPDR) 2. End of Module Questions (ELMQ) 3. End of Course Interview (IGQ) 4. End of Course Survey Questions (ATES)	Strong Acknowledgement	Participants acknowledged that over 75% of the criteria for effective course overview and introduction standards are present within the ATPD course. Qualitative data indicates predominately positive comments.
	Moderate Acknowledgement	Participants acknowledged that over 50% of the criteria for effective course overview and introduction standards are present within the ATPD course. Qualitative data indicates mostly positive comments.
	Weak Acknowledgement	Participants acknowledged that less than half, but more than 25% of the criteria for effective course overview and introduction standards are present within the ATPD course. Qualitative data indicates mostly negative comments.
	No Acknowledgement	According to participants, less that 25% of the criteria for an effective course overview and introduction standards are present. Qualitative data indicates predominately negative comments.
GSQ1.2 To what degree did course participants acknowledge that the ATPD course's goals and objectives were clearly defined and measurable according to high quality hybrid learning standards? <u>Data Sources</u> 1. HPDR 2. ELMQ 3. IGQ	Strong Acknowledgement	Participants acknowledged that over 75% of the criteria for clearly defined goals, objectives and accurate course assessments were present. Qualitative data indicates predominately positive comments.
	Moderate Acknowledgement	Participants acknowledged that over 50% of criteria for clearly defined goals, objectives and accurate course assessments were present. Qualitative data indicates mostly positive comments.
	Weak Acknowledgement	Participants acknowledged that less than half but more than 25% of criteria for clearly defined goals, objectives and accurate course assessments were present. Qualitative data indicates mostly negative comments.
	No Acknowledgement	Participants acknowledged that less than 25% of the criteria for clearly defined goals, objectives and accurate course assessments were present. Qualitative data indicates predominately negative comments.
GSQ1.3 To what extent did course participants acknowledge that high quality hybrid learning standards were reflected through meaningful learning and support within the ATPD course's instructional model? <u>Data Sources</u> 1. HPDR 2 ELMQ 3. IGQ	Strong Acknowledgement	Participants acknowledged that over 75% of the criteria for meaningful learning and support were present within the ATPD course's instructional design. Qualitative data indicates predominately positive comments.
	Moderate Acknowledgement	Participants acknowledged that over 50% of criteria for meaningful learning and support were present within the ATPD course's instructional design. Qualitative data indicates mostly positive comments.
	Weak Acknowledgement	Participants acknowledged that less than half but over 25% of criteria for meaningful learning and support were present within the ATPD course's instructional design. Qualitative data indicates mostly negative comments.

	No Acknowledgement	Participants acknowledged that less than 25% of the criteria for clearly defined goals, objectives and accurate course assessments were present within the ATPD course's instructional design. Qualitative data indicates predominately negative comments.
GSQ. 1.4 To what extent did course participants acknowledge that course resources and materials were comprehensive and reflected high quality-hybrid learning? <u>Data Sources</u> 1. HPDR 2. ELMQ 3. IGQ 4. ATES	Strong Acknowledgement	Participants acknowledged that over 75% of the criteria for comprehensive course resources and materials were present within the ATPD course. Qualitative data indicates predominately positive comments.
	Moderate Acknowledgement	Participants acknowledged that over 50% of the criteria for comprehensive course resources and materials were present within the ATPD course. Qualitative data indicates mostly positive comments.
	Weak Acknowledgement	Participants acknowledged that less than half but over 25% of criteria for comprehensive course resources and materials were present within the ATPD course. Qualitative data indicates mostly negative comments.
	No Acknowledgement	Participants acknowledged that less than 25% of the criteria for comprehensive course resources and materials were present within the ATPD course. Qualitative data indicates predominately negative comments.
GSQ. 1.5 To what extent did ATPD course participants acknowledge that high quality hybrid learning standards for technology, fostered learning & interactivity? <u>Data Sources</u> 1. HPDR 2. ELMQ 3. IGQ 4. ATES	Strong Acknowledgement	Participants acknowledged that over 75% of the criteria for accurate and effective course technology were present. Qualitative data indicates predominately positive comments.
	Moderate Acknowledgement	Participants acknowledged that over 50% of criteria for accurate and effective course technology were present. Qualitative data indicates mostly positive comments.
	Weak Acknowledgement	Participants acknowledged that less than half but over 25% of criteria for accurate and effective course technology were present. Qualitative data indicates mostly negative comments.
	No Acknowledgement	Participants acknowledged less than 25% of the criteria for accurate and effective course technology were present. Qualitative data indicates predominately negative comments.
GQ2 - Will K-12 teachers develop an increase in understandings of course content after completing a hybrid professional development course?		
GSQ 2.1 Did the disaggregate group of participants indicate an increase in the building of course content knowledge? <u>Data Sources</u> 1. Pre/Post Content Test (ATCPT)	Strong indication	Participants as a class indicated a 60% or more increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.
	Moderate indication	Participants as a class indicated between 35% - 60% increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores
	Some indication	Participants as a class indicated a 35% or below increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.
	No indication	Participants as a class indicated no increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.
GSQ2.1a Did the aggregate category of "years taught" indicate an increase in the building of	Strong indication of increase	The aggregate category of "years taught" indicated a 60 % or more increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.

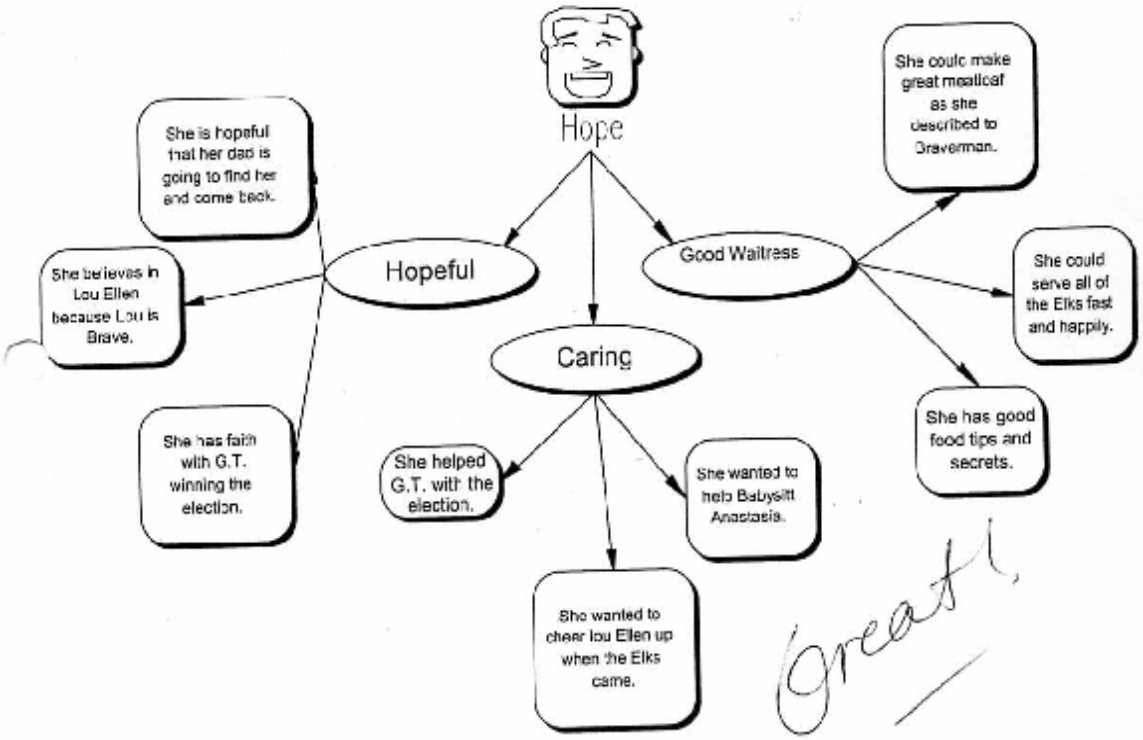
participants course content knowledge? <u>Data Sources</u> ATCPT	Moderate indication of increase	The aggregate category of “years taught” indicated a 35% - 60% increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores
	Some indication of increase	The aggregate category of “years taught” indicated a 35% or lower increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores
	No indication of increase	The aggregate category of “years taught” indicated no increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.
GSQ2.1b Did the aggregate category of “teaching specialty” indicate an increase in participants’ building of course content knowledge? <u>Data Sources</u> ATCPT	Strong indication of increase	The aggregate category of “teaching specialty” indicated a 60% or above increase in building course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.
	Moderate indication of increase	The aggregate category of “teaching specialty” indicated a 35% - 60% increase in building course content knowledge as measured by the mean difference between the mean pre-post content test scores.
	Some indication of increase	The aggregate category of “teaching specialty” indicated a 35% or lower increase in building course content knowledge as measured by the percentage of difference between the mean pre-post content test scores
	No indication of increase	The aggregate category of “teaching specialty” indicated no increase in the building of course content knowledge as measured by the percentage of difference between the mean pre-post content test scores.
GSQ 2.2 Did participants indicate a significant increase in the building of course content knowledge at the confidence interval of p< .05? <u>Data Sources</u> 1. ATCPT	There is a significant level of increase between pre and post test results	Course participants indicated a significant increase in the building of course content knowledge as measured by a One-Sample T Test at the p<.05 confidence level as determined through SPSS Software.
	There is no significant level of increase between pre-post test results.	Course participants indicated no significant increase in the building of course content knowledge as measured by a One-Sample T-Test at the p<.05 confidence level as determined through SPSS Software.
GSQ 2.2a Did the aggregate category of “years taught” indicate a significant increase at the confidence interval of p<.05? <u>Data Sources</u> 1. ATCPT	There is a significant level of increase between pre and post test results	The aggregate category of “year taught “ demonstrated a significant increase in the building of course content knowledge as measured by a One Sample T-Test p<.05 confidence level as determined through SPSS Software
	There is no significant level of increase between pre-post test results	The aggregate category of “year taught “ demonstrated no significant increase in the building of course content knowledge as measured by a One Sample T-Test at the p<.05 confidence level as determined through SPSS Software
GSQ2.2b Did the aggregate category of "teaching area" indicate a significant increase at the confidence interval of p<.05?	There is a significant level of increase between pre and post test results	The aggregate category of “year taught “ indicated a significant difference in course understanding as measured by a One Sample T-Test at the p<.05 confidence level as determined through SPSS Software
	There is no significant level of increase between pre and post test results	The aggregate category of “year taught “ indicated no significant increase in the building of course content knowledge as measured by a One Sample T-Test at the p<.05 confidence level as determined through SPSS Software
GSQ. 2.3 Did participants indicate that the ATPD course’s technology assisted	Strong indication of assistance	Participants’ indicated predominantly positive comments about the effectiveness of course technology in assisting them build course content knowledge.

in building of course content knowledge? <u>Data Sources</u> 1. ELMQ 2. IGQ 3. ATES	Moderate indication of assistance	Participants' indicated mostly positive comments about the effectiveness of course technology in assisting them build course content knowledge
	Little indication of assistance	Participants' indicated predominantly negative comments about the effectiveness of course technology in assisting them build course content knowledge.
	No indication of assistance	There was no indication that participants believed that course technology assisted them build course content knowledge.
GSQ 2.4 Did participants indicate that the course's hybrid-based learning environment assisted them in building course content knowledge? <u>Data Sources</u> 1. ELMQ 2. IGQ 3. ATES	Strong indication of assistance	Participants' indicated predominantly positive comments about the effectiveness of the hybrid-based learning framework in assisting them build course content knowledge.
	Moderate indication of assistance	Participants' indicated mostly positive comments about the effectiveness of the hybrid-based learning framework in assisting them build course content knowledge
	Little indication of assistance	Participants' shared predominantly negative comments about the effectiveness of the hybrid-based learning framework in assisting them build course content knowledge.
	No indication of assistance	There was no indication that participants believed the hybrid-based learning environment assisted in their building of course content knowledge
GSQ 2.5 Did participants indicate that the course's facilitator assisted in their building of course content knowledge? <u>Data Source</u> 1. ELMQ 2. IGQ 3. ATES	Strong indication of assistance	Participants indicated predominantly positive comments about the assistance of the course facilitator in building course content knowledge
	Moderate indication of assistance	Participants indicated mostly positive comments about the assistance of the course facilitator in building course content knowledge
	Little indication of assistance	Participants' shared predominantly negative comments about the assistance of the course facilitator in building course content knowledge
	No indication of assistance	There was no indication that participants believed the course facilitator assisted them in their building of course content knowledge.
GQ 3 How will participants who complete a hybrid-based professional development course report incorporating course content into their own instructional practices?		
GSQ 3.1 Was there any evidence that participants had transferred course content knowledge into their instructional practice? <u>Data Source</u> 1. ELMQ 2. IGQ 3. ATES	Strong indication of transference	Participants indicated numerous evidentiary artifacts of course content knowledge transference into their instructional practices
	Moderate indication of transference	Participants indicated some evidentiary artifacts of course content knowledge transference into their instructional practices.
	Little indication of transference	Participants indicated few evidentiary artifacts of course content knowledge transference into their instructional practices.
	No indication of transference	There was no indication by participants of transference of course content knowledge into their instructional practices.
GSQ 3.2 Was there any evidence that participants transferred course information to other teaching professionals? <u>Data Source</u> 1. ELMQ 2. IGQ 3. ATES	Strong indication of transference	Participants indicated numerous examples of transferring course content knowledge to other practicing teaching professionals.
	Moderate indication of transference	Participants indicated some examples of transferring of course content knowledge to other practicing teaching professionals.
	Little indication of transference	Participants indicated few examples of transferring course content knowledge to other practicing teaching professionals.
	No indication of transference	There was no indication by participants of transferring course content knowledge to other practicing teaching professionals.

GQ 4 Through the interview process, how did participants evaluate and describe the attributes, benefits, and concerns they experienced learning through a hybrid-based environment?		
GSQ 4.1 – During the interview process to what extend did course describe the positive attributes of a hybrid-based learning environment? <u>Data Source</u> 1. IGQ	Numerous positive attributes are expressed	Participants provided numerous positive attributes about learning through a hybrid-based environment
	Many positive attributes are expressed	Participants expressed many positive attributes about learning through a hybrid-based environment.
	Few positive attributes are expressed	Participants expressed few positive attributes about learning through a hybrid learning experience
	No positive attributes are expressed	Participants expressed no positive attributes about learning through a hybrid-based environment
GSQ 4.2 During the interview process, to what extent did participants express specific concerns about their experience learning in a hybrid-based environment. <u>Data Source</u> 1. IGQ	Numerous concerns are expressed	Participants expressed numerous concerns about learning through a hybrid-based environment
	Many concerns are expressed	Participants expressed many concerns about learning through a hybrid-based environment.
	Few concerns are expressed	Participants expressed very few concerns about learning through a hybrid-based environment.
	No concerns are expressed	Participants expressed no concerns about learning through a hybrid-based environment.
GSQ 4.3 During the interview process, what perceptions did participants express about hybrid learning and what recommendations did individuals suggest about professional development delivered through a hybrid-based environment? <u>Data Source</u> 1. IGQ	Numerous recommendations were expressed	Participants expressed numerous recommendations pertaining to learning through a hybrid-based environment.
	Many recommendations were expressed	Participants expressed many recommendations pertaining to learning through a hybrid-based environment.
	Few recommendations were expressed	Participants expressed few recommendations pertaining to learning through a hybrid-based environment.
	No recommendations were expressed	Participants expressed no recommendations pertaining to learning through a hybrid-based environment.

APPENDIX M - Qualitative Data Artifacts

Artifact 1


Hope
Hopeful
Caring
Good Waitress
She is hopeful that her dad is going to find her and come back.
She believes in Lou Ellen because Lou is Brave.
She has faith with G.T. winning the election.
She helped G.T. with the election.
She wanted to help Babysitt Anastasia.
She wanted to cheer lou Ellen up when the Elks came.
She could make great meatloaf as she described to Braverman.
She could serve all of the Elks fast and happily.
She has good food tips and secrets.
Great!

Artifact 2

Lesson Plans for Reading June 1, 2005
Joanne Carter Assistive Technology
Class

Objective: To assess student understanding of main idea and details.

Warm-up: Students will complete first line of graphic organizer on practice book page 348.

- BL will create a table on "Write Out Loud" to simulate the organizer in the book.

Directive: Teacher will model how to find main idea (topic sentence or bold face subtitles) and details to complete organizer.
*BL will complete organizer with assistance

Guided: Students will read pages 632- 636 for information. Students will complete organizer in practice will reading story.
*BL may complete his organizer as he reads.

Independent: Students will read the rest of the story and answer the third BCR on the worksheet.
*BL will write his answer to the BCR on the "Write out loud" program.

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