TRANSFORMATIVE LEARNING IN

ONLINE COURSES

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Dedications

TO:

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Chapter I: Design of the Study

Distance education is becoming an increasing component of the curriculum at the collegiate level. According to the National Center for Educational Statistics, for-credit courses offered by two- and four-year degree granting institutions via distance education grew by 151% from 47,000 in 1997-98 to 118,000 in 2000-01 (Kiernan, 2003). Distance education varies at each institution, but the most popular forms seem to be online courses and courses offered using interactive television, ITV. Of institutions that reported offering distance education courses, the vast majority said they used online technology, and almost half reported offering internet courses (Kiernan, 2003).

 Currently, students grow up in a world where technology is prevalent and they tend to want to use these tools to expand their educational opportunities. Many students enjoy the use of technology in their courses and feel it enhances their learning (Carnevale, 2005; Clarke, Flaherty, & Mottner, 2001). Enrollment in online courses has grown from 1.98 million in 2003 to around 2.35 million in 2004 (Allen & Seaman, 2005). Technology provides a way for students to vary their educational opportunities that have not been previously possible. Online courses are expanding offerings from traditional higher educational institutions. Without being site or time bound, courses and faculty expertise are now available to a whole new set of individuals, many of whom are adult students (Kiernan, 2003; Meyer, 2002).

Proponents of online courses point to internet resources making it possible for students to have continued discussions about course content which in turn provides the

opportunity for more collaboration among student and classes (Shovein, Huston, Fox, & Damazo, 2005; Wichersham & Dooley, 2006). Students mention that dialogue with others provides an important way to bridge the distance and provide a positive impact for learning course material (Shaffer & Farr, 1993). Relationships can be built and expanded upon through the use of technology, and these relationships can enhance student learning (Nitkin, 2005). In traditional classrooms many professors are driven by the clock. It makes little difference if students are involved in a discussion; when it is time to go the discussion ceases. Online courses allow for the discussions to continue and potentially become more in-depth.

Many critics of online education believe that in order for online education to be successful, professors need to rethink the relationship between students and learning (Bielawski & Metcalf, 2003; Foster, 2001). Fleener (2002), throughout her book *Curriculum Dynamics,* discusses the significance of relationships and viewing students as individuals who are an essential component in student learning. Some challenge the notion that technology provides a way for students to be individual learners while at the same time build relationships with others in the course (Berg, 2002; Foster, 2001). Faculty express concern about the quality of online classes and believe the lack of contact with students hinders relationships and is detrimental to the learning environment (Bielawski & Metcalf, 2003; Foster, 2001).

In addition, many experts do not believe enough reputable research has been conducted to determine the quality of online courses (Meyer, 2002). There is little empirical evidence to support a case for technology enhancing student learning (Krentler & Willis-Flurry, 2005). Due to this lack of information, educators are questioning the

value of online courses and, in some cases, believe that these types of courses actually discourage opportunities for student learning experiences. The value and quality of technology in courses remain largely ambiguous without evidence to support the development of learning (Krentler & Willis-Flurry, 2005).

This perceived question of quality research exploring student learning provides the opportunity to use transformational learning as a theoretical base to study online courses. Transformational learning involves a learner's shift in his or her assumptions and understanding through critical reflection in order to process new information (King, 1998). The learner then uses the new knowledge in his or her life. Therefore, transformational learning transcends mere memorization of facts and focuses on student learning rather than content transfer.

Technology can now allow us to do more than simply modify current educational techniques (Detweiler, 2004). An examination of current educational practices in the online environment provides little information in helping to determine if those practices are presenting the opportunity for transforming the learning of students. Educators need to open their minds and recreate the way education is approached. It is not enough to simply throw together a couple of internet courses and say that institutions are utilizing technology. Future faculty must find a way to use technology more effectively for students. Learning must become more interactive, less authority-dependent (Dickens, 2004), and must focus on the learning experience rather than content transfer.

By rethinking how technology is being used in the classroom, higher education professionals can help create an environment that is conducive to learning and allows students to discover knowledge at their own pace. Educators should make use of new

technologies at every level of education and develop new instructional methodologies which focus on learning, not teaching (Moore, 1994; O'Banion, 1997). The educational strategies of the last 10 years seemed to be focused on bringing technology to every corner of the campus, therefore the next 10 years should be focused on making that technology more effective, easier to use, and more efficient for student learning (Detweiler, 2004; Meyer, 2002).

Problem Statement

In recent years, graduate online courses have become pervasive in contemporary higher education (Foster, 2001). Proponents of this type of course offering believe that technology can be and is being used in a meaningful and innovative way to advance the dissemination of knowledge (Hiltz & Turnoff, 2005; Shovien et al, 2005). In addition, current research has shown that when looking at outcomes there is relatively no difference in performance by students on campus or online (Russell, 2001).

There is, however, concern and widespread skepticism about the quality of online courses (Shovein et al, 2005; Bielawski & Metcalf, 2003). Critics of online education believe there is a need to re-conceptualize good practices for teaching and learning to serve the learning needs of a diverse group of technologically astute students (Foster, 2001). There is a divide within academia about the use of online technology and the potential online courses could have in providing learning opportunities for students.

The existence of these two bodies of research, one which supports and promotes the usefulness of online learning and one which is less positive about the learning experiences of students in online courses is possible when the outcome of learning is knowledge transfer. By examining the learning experiences of students rather than

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looking simply at outcomes based on content transfer, the question of the "goodness" of online education can be addressed more completely. Using Mezirow's transformative learning theory, one would hypothesize that only if evidence of transformative learning can be documented by students who have taken online courses can those online courses be said to provide meaningful learning opportunities for students.

Purpose of the Study

This exploratory study is focused on investigating the perceptions of graduate students enrolled in online courses at a large research institution. Mezirow's theory of transformative learning provides a lens to examine students learning in this online program. This research is concerned with finding out what is happening. It is not used to determine a causal relationship. The research instead examines student responses to an online survey in order to generalize the perceptions from a sample population and to use the data collected about that population to determine if evidence of transformative learning is occurring.

Theoretical Framework

Mezirow (1997) believed when people are too comfortable in their learning, it is unlikely that transformation in their understanding will take place. Mezirow's transformative learning theory fits well within the constructivist paradigm where learners construct knowledge through their experiences with others and the world around them (Moore, 2005). Transformational learning theories range from Heidegger's analysis of human experience to Boyd's concept of individualization (Glisczinski, 2005). This research will utilize Mezirow's theory because it relies on the rational, whereas other theories of transformative learning view the intuitive, creative and emotional process as

more important than the critical reflection proposed by Mezirow (Imel, 1998). In fact, central to Mezirow's theory is rational discourse and critical reflection, both of which focus on individual learners' ability to think about the learning experiences. Other transformation theories are grounded in psychological work and deal with transformation of an individual's personality or social transformations (Taylor, 1998).

Mezirow's transformative learning is concerned with developing autonomous thinking in students (Imel, 1998). The three themes that are central to his theory are centrality of experiences, critical reflection, and rational discourse (Moore, 2005). Mezirow acknowledges that all learning can create change in an individual, but not all of the change is transformative in nature. Mezirow's (1991) states that transformations often involve the following ten tenets:

1) A distorting dilemma

2) Self-examination with feelings of guilt or shame

3) A critical assessment of assumptions of epistemic, socio-cultural or psychic assumptions

4) Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change

5) Exploration of options for new roles, relationships, and actions

6) Planning a course of action

7) Acquiring knowledge and skills for implementing one's plans

8) Provisional trying of new roles

9) Building competence and self-confidence in new roles and relationships

10) A reintegration into one's life on the basis of conditions dictated by one's new

perspective. (Mezirow, 1991, p 168-169)

These tenets represent the stages of transformation and were used to frame the survey

questions designed to illicit information about student learning experiences.

Transformative learning is focused on students altering their frame of reference

through critical reflection and communication with others (Mezirow, 1989). In fact, the

underlying notion of transformative learning is that students change their meaning

scheme as they engage in reflection and discussion related to the course content. This

theory of transformative learning provided the theoretical framework for this research

study.

Significance of the Study

This study has potentially impacted future practices in online education for adult

learners. The results could indicate that some programs need to refocus their courses. For

example, if other studies conclude the students in those online courses are not

experiencing transformative learning, educators and program leaders will need to

reexamine the purpose, benefits, etc. of those online programs.

This study has impacted theory by examining student learning in online courses.

Transformative learning is evident from the data, so the proponents of online education

have evidence to affirm their opinion that students are learning in this type of format.

One of the major criticisms of research related to online learning is the "no

significant difference" phenomenon. Critics argue the problem with this type of study is

that the research is not based on theory and fails to take individual students into account.

Much of the research related to online learning is comparative in nature and finds, when

comparing students' content knowledge in traditional and online environments, there is little if any differences. This research study, however, is theory based and examines student learning experiences rather than learning outcomes. It will also help expand the understanding of graduate student learning experiences in online courses.

In practice, the relevance of this research could be important. Doctoral/Research institutions seem to be the most selective in which courses they offer online (Allen & Seaman, 2005; Meyer, 2002). This research provides evidence that could impact institutional decisions about the evaluation of courses offered, which may encourage additional course offerings. Furthermore, federal regulators, accrediting agencies, and state regulators could be influenced by the conclusions about quality in online courses. Student financial aid and student access issues could also be influenced by determinations of quality within online education.

Students moving into the workforce today need more than basic comprehension of concepts and content knowledge transfer to be successful (Meyer, 2002). This research could influence the types of courses students are presented in an online program by encouraging the examination of the learning experience rather than simple content transfer.

Summary

There is little evidence to show that graduate students are experiencing transformational learning in online courses. With the increase in online courses, more research needs to be conducted regarding the students learning experience. When looking only at content transfer, data shows that students in both online courses and on campus courses perform relatively the same (Myers, 2002; Russell, 2001). This research is more

concerned with looking beyond the surface outcomes to actual student learning. By examining practices in correlation with Mezirow's theory of transformative learning, this research should help determine if online programs are headed in the right direction or if educators need to reevaluate online programs.

Reporting

The remaining portions of the dissertation will be broken down as follows: Chapter Two will contain a detailed review of related literature. Literature will be examined related to proponents of online education as well as from a critical view. In addition, literature about transformative learning will be examined.

Next, a detailed description of the research methodology will be included as Chapter Three. Details about the theoretical framework that guides the research will be provided. Information about research participants will also be included in this third chapter. The methods for collection of the data will be expanded.

The fourth chapter will analyze the data presented in Chapter Three and contain information related to the findings of the study. The analysis will be tied to Mezirow's transformative learning theory in order to show the participants in this online program experienced this type of learning in their courses.

Finally, in Chapter Five a summary of the research as well as conclusions, discussion, limitations, and reflections on the data collected will be discussed.

Chapter II: Review of Literature

Distance education provides a chance to expand a students' learning opportunities through the use of technology (Nitkin, 2005; Wichersham & Dooley, 2006). Distance education is becoming an increasing feature of the curriculum offered at the collegiate level. In the 2000-2001 academic year, 90% of public community colleges and 89% of public universities offered distance education courses (National Center for Educational Statistics, 2003), and 67% of graduate students and 60% of undergraduate students participated in internet courses (Sikara, 2001).

Technology could be used as a tool to increase student learning by providing additional opportunities that otherwise would not be possible (Shovein, Huston, Fox, & Damazo, 2005; Wichersham & Dooley, 2006). This study is interested in examining how technology through online learning can be focused on students experiencing transformative learning rather than simple transfer of content.

Colleges must adapt to meet the needs of the students (Foster, 2001; Imamoglu, 2007; Moore, 1994; Shih & Allen, 2007). Technology provides a way for students to vary educational opportunities in ways that were not previously possible (Wise, Chang, Duffy, & Del Valle, 2004). Online courses are forcing traditional higher educational institutions to make courses and faculty expertise available to a whole new set of students, many of whom are adult students (Kiernan, 2003).

Research clearly indicates as a result of the growth in online courses, students feel that they benefit in some way from online instruction (Kiernan, 2003). According to students, the additional accessibility and flexibility of online courses are a primary reasons for enrolling in these types of courses (Dove, 2006). However, the issue of student learning is not generally addressed by the students in response to questions of why they take online classes. Therefore, there is a need to examine online courses to determine if learning is occurring.

Curriculum leaders must look for new ways to work within the system to provide opportunities for true learning to occur (Givens, 2007). There is a distinct difference between understanding something and simply memorizing unconnected facts. Educators should make use of new technologies at every level of education and develop new instructional methodologies which focus on learning, not teaching (Moore, 1994; O'Banion, 1997). Educators need to examine the technologies that are available and discover how those technologies can be used to improve student learning (Imamoglu, 2007). This research will examine student learning in online courses and discover if transformative learning is taking place and to what extent adult students feel online learning has transformed their education.

There is an increasing outcry to evaluate the use of technology for teaching and more importantly, for student learning (Foster, 2001). More extensive research needs to be conducted related to student learning in online courses. Are students provided the opportunities for transformative learning to occur in online courses? Some experts believe that there is not enough evidence to show that transformation is occurring among adult learners in higher education (Taylor, 1998).

Online resources make it possible for classes of students to have continual discussions about course content. The theory of transformative learning shows how this could lead to a deeper understanding and possibly transform the way students interact with the course content. In traditional classrooms, instructors are driven by the clock. However, in online courses, relationships can be built and expanded upon through the use of technology, and those relationships could enhance the students' learning. Curriculum leaders need to help create an environment that is conducive to learning and allows students to discover knowledge at their own pace.

In many cases, current educational practices are not transforming the learning opportunities for students (Herrington & Oliver, 2000; Pierre, 2004) due to the overemphasis on the acquisition of procedures and facts (Cole, 1990). Educators need to open their minds and recreate the way education is approached. In the future, technology must be used more effectively for students (Foster, 2001). Learning must become more active (Dickens, 2004), less dependent on memorization of unconnected facts (Herrington & Oliver, 2000), and more focused on student learning rather than content transfer (Shovein, Huston, Fox, & Damazo, 2005). The vision for curricular improvement in schools needs to incorporate technology. Subsequently, this review of literature looks both at positive and negative literature related to online technologies in education, and the theory of transformative learning.

The Positives of Online Learning

A review of the literature shows several areas related to a positive view of online learning. First, and probably the most prominent, are studies showing that students in the classroom and online perform at the same level in many areas. Next is literature related to

students' perceptions of online courses and how those courses can bridge the distance and build relationships. The issues of technical support and pedagogy in online courses are addressed next. Individual studies have been conducted within various disciplines related to the benefit of online learning. These studies include areas such as business, health care, and education. And finally, a summary is provided which examines information from a leading consortium of institutions focused on distance learning, the Sloan Consortium.

No significant difference phenomenon. Proponents of online education point to numerous studies conducted comparing online courses to traditional courses. Several studies based on a comparison of final grades for students in traditional courses versus online courses suggest that distance learning courses are effective (Sonner, 1999). Research supporting the effectiveness of distance education shows no significant difference in the outcomes of online education programs when compared with traditional educational experiences (Alon, 2003; Clark, Flaherty, Motner, 2001; Kulick, 1994; Russell, 1999; Sivin-Kachala, 1998; Smith, Smith, & Boone, 2000).

A case study at Christopher Newport University conducted in 1999 examined final grades and found no statistically significant difference between students in traditional courses versus online courses (Dominquez & Ridleyl, 1999). A study conducted at Santa Barbara City College during the fall of 1998 examined student success in online courses as defined by grades and also found no difference in success rates of students online compared to traditional settings (Serban, 2000). Another comparative study conducted at the graduate level in two accounting courses during the fall of 1999 stated similar results (Gagne & Shepherd, 2001). Several studies in the online journal, *Journal of Asynchronous Learning Network,* were comparative in nature and

reported little, if any, differences in student performance in an online setting compared with traditional courses (Bourne, McMaster, Rieger, & Campbell, 1997; Sener &Stover, 2000; Wegner, Holloway, & Garton, 1999).

Proponents of online courses point to internet resources making it possible for classes of students to have continued discussions about course content, which provides students with the opportunity for more collaboration (Shovein, Huston, Fox, & Damazo, 2005; Wichersham & Dooley, 2006). Supporters point out that research conducted over 70 years on distance education has documented the effectiveness of its courses as compared to traditional courses (Potashnik & Cooper, 1998).

Building relationships in online courses. Students mention that discussions with others are an important way to bridge the distance and provide a positive impact for learning course material (Clark, et.al, 2001; Dove, 2006; Krentler & Williams, 2001; Shaffer & Farr, 1993). Traditionally, time is one of the factors that drive our classes. It makes little difference if students are involved in a discussion, when it is time to leave the discussion ceases. Connections can be established and reinforced through the use of technology, and these connections can enhance student learning (Nitkin, 2005). Proponents of this type of learning point out that in comparison with traditional classes, many students indicate they had greater interaction with online faculty (Shovein, Huston, Fox, & Damazo, 2005). Research has shown that online discussions can help students to analyze course objectives and enhance their understanding of important concepts (Wichersham & Dooley, 2006).

Support for faculty and students in online course. In order to enhance student learning in online courses, most experts agree that students should be provided with

support from the institution when beginning online courses and continual support throughout the program (Carnevale, 2005; Novak, 2002). Students should also be kept informed about technical and pedagogical issues during the online course (Allen & Seaman, 2005; Novak, 2002). Research suggests that if students are not able to log on to the course and access material at any given time and are unable to receive appropriate support they will not be successful in the course (Haber, 2005).

Studies focused on the benefit of online courses. Several studies have been conducted which focus on the benefits of online programs (Bernado, Ramos, Plapler, Fransisco, de Figueiredo, Nader, Ancaos, Von Dietrich, & Siyvlen, 2004; Dutton, Dutton,& Perry, 2001; Haber, 2005; Krentler & Willis-Flurry, 2005; Kulich, 1994; Serban, 2000). In a study designed to assess the use of technology as a learning tool for business students, researchers looked at the impact of discussion threads on overall learning. The instructor posted material and students engaged in threaded discussions. The results show that regardless of the students' computer experience, the use of technology had significant positive effects on learning (Krentler & Willis-Flurry, 2005). Another study which showed a positive effect in students' "knowledge gains" was conducted with a group of undergraduate medical students. This study concluded that online courses could be developed which would enhance student learning (Bernado, et al, 2004).

Other programs are also investigating the use of online education methods. The University of North Carolina at Chapel Hill School of Public Health in 1997 started its first distance education cohort for Public Health Leadership. Students in the program expressed satisfaction with the program and continued to do so after one year. Nearly all graduates of the program said they would recommend the program to others (Examining the impact,

2004). Another study conducted in North Carolina at North Carolina State University compared student outcome in an online and face-to-face introductory computer course. This study found that students in the online version did significantly better than students in lecture version of the course (Dutton, Dutton, & Perry, 2001).

In still another study, Haber (2005) found that some faculty believe online students are more serious and there are fewer distractions in this type of environment. Faculty stated that in traditional courses, distractions from students coming in late, being disruptive, etc. were not a problem in the online courses (Haber, 2005).

Educational programs are also exploring the issue of distance education. One such area is interested in helping programs to keep up with the training of educational administrators. According to Patten & Holt (2002), distance learning permits administrators who are confined by place and time to take courses at their convenience. It has been shown that these strategies will help ease the shortage of well-trained school administrators (Patten & Holt, 2002). In another study, Morningstar and Clark (2003) found that online learning can help with the shortages of qualified special education teachers. They concluded that online technology can provide the flexibility and a critical transition to education that many adult learners need.

Summary. A summary of literature related to online education is provided in a study by the Sloan Consortium and provides a broad look at what is taking place in practice. In the study sponsored by the Sloan Consortium, Allen and Seaman (2005) concluded the following: a) there are a large number of online courses offered, b) there is a strong trend toward considering online courses part of each schools long term strategy, c) online classes

are no harder to evaluate than on-campus classes, and d) doctoral institutions are the most selective in which courses are included in an online curriculum.

Other findings in the comprehensive study included that many feel that teaching in an online environment is more time consuming and that students must be more disciplined to complete online courses (Allen & Seaman, 2005). With respect to the types of courses offered, the study concluded that most online courses closely match the traditional face-to-face courses that are offered. These courses tended to be evaluated in similar ways to traditional courses, as well.

The Negatives of Online Learning

The literature also presents a picture of the opposing viewpoint. Many believe there are still issues that must be addressed in order for online education to be valuable. First is the call for educators to rethink how they interact with students and the relationships that are built in the classroom. Another concern is the quality of online education. There is a call for more quality research to be conducted regarding student learning in online course. Faculty have also expressed concern regarding the need for collaboration and the issue of addressing learning styles in this type of format. Finally, faculty are concerned with the level of involvement and issues of academic freedom that arise in facilitating online courses. Each of these areas will be addressed in this section of the literature review.

Lack of relationships in online course. Many critics of online education believe that for it to be successful, professors need to rethink the relationship between students and learning (Bielawski & Metcalf, 2003; Foster, 2001). Fleener (2002), throughout her book *Curriculum Dynamics,* discusses the importance of relationships and viewing

students as individuals as an enhancement to student learning. Some challenge the notion that technology provides a way for students to be individual learners while at the same time build relationships with others in the course; in fact critics of distance education complain that distance courses preclude interaction between student and instructor and student and student (Berg, 2002; Foster, 2001). Zemsky and Massy (2004) found students can be unsuccessful in online courses because they need "an actual, physical, intact learning community" (p. 51).

Faculty have expressed concern about the quality of online classes and believe the lack of contact with students hurts the development of relationships and deters student learning (Bielawski & Metcalf, 2003; Foster, 2001; McClure, 2006). In addition, some question the lack of rich experience that is provided online compared to many traditional classrooms (Mehrotra, Hollister, & McGahey, 2001). In fact, research has concluded that there is no evidence that the increase in online courses or programs has led to greater acceptance by the faculty (Allen & Seaman, 2005; McClure, 2006).

Lack of quality research in online course. In addition, many experts do not believe enough reputable research has been conducted to determine the quality of online courses (Meyer, 2002). There is little pragmatic evidence to support a case for technology enhancing student learning (Krentler & Willis-Flurry, 2005). Due to this lack of information, educators are questioning the value of online courses and in some cases believe that these types of courses actually deter opportunities for student learning experiences. The value of technology in courses remains largely uncertain without evidence to support development of learning (Krentler & Willis-Flurry, 2005).

While many studies conclude that students prefer online learning, Leonard and Guha (2001) provide the opposing view. In an article, they report that many students surveyed at the conclusion of a traditional course believed that they would learn less material if the course were taught online, and therefore, they would not take an online version of the same course if offered. This supports the need to evaluate the effectiveness of technology as well as students' perceptions of online courses (Dove, 2006).

Collaboration and learning styles in online learning. There is also a lack of agreement among experts related to whether there should be a consideration of learning styles or cognitive strategies in online courses (Allen & Seaman, 2005; Novak, 2002). In addition, experts differ on their opinions concerning the amount of collaborative or group work that should be a part of an online curriculum (Novak, 2002). How much time should be devoted to individual learning and how much time should be devoted to collaborative opportunities are other issues that have been debated. Time on task, seat time, and response time are all issues in online course (Allen & Seaman, 2005). Part of this debate is centered on whether online courses should emulate traditional courses in relation to the issue of time and collaboration. In some cases, research has found that faculty believe distance education is inferior to traditional education (Schifter, 2000) and will add little educational value (Haber, 2005) even if collaboration and learning styles are taken into account in developing the course.

Academic freedom and faculty involvement in online course development. Another area of disagreement is related to the level of faculty involvement in designing the course as well as in controlling students' interactions during the online course.

Experts have differing opinions about how much or how little guidance should be given to students in the online classroom (Allen & Seaman, 2005; Novak, 2002).

An area of agreement is that faculty should be given support in technical and pedagogical issues related to teaching online (Allen & Seaman, 2005). Kennedy, Nowak, Raghuraman, Thomas, and Davis (2000) found that both students and faculty believe it is easier to cheat in an online course. This causes concern for faculty when trying to develop online courses. It also raises some concerns about how involved faculty should be in creating those types of courses without proper training (Allen & Seaman, 2005).

These issues make educators uncertain about online education. Many feel that more research is needed to prove the value of online courses (Haber, 2005). While online education has been more prominent in recent years, it is clear in reviewing the related literature that there are still several questions that need to be answered. One such question is related to student learning. Transformational learning provides one lens through which to examine this issue.

Transformative Learning

There is a plethora of literature related to learning theory. This literature review focuses on Mezirow's transformative learning theory. First, a discussion of the root of this theory is provided. This discussion includes the founding concept that for true learning to take place, a learner cannot be too comfortable. Then, a look at the theory itself related to developing autonomous thinkers through an alteration of the learners' framework is examined. And finally, a brief look at other theories of transformational learning is provided in order to provide justification for using Mezirow's theory in this research.

Transformational learning theory has its roots in humanistic and constructivist paradigms. The theory is based on the belief that learners have the potential to participate in collaborative discourse, to become self-motivated and rational in relation to their learning experience (King & Wright, 2003). This type of learning will critically expose previously unexamined premises and is more than a simple changing of one's mind. Transformational learning involves reframing of how individuals conceptualize the world around them (King & Wright, 2003).

Mezirow's transformative learning theory. People tend to not focus on problems that are unsettling (Mezirow, 1991). Mezirow used this to help develop his theory related to transformative learning. He believed that if people are too comfortable in their learning, it is unlikely that transformation in understanding will take place (Mezirow, 1991). Transformative learning involves altering a person's frame of reference and point of view through critical reflection. In fact, the unsettling feeling of being stretched to think beyond our normal capacity is seen in this theory to be one of the most valuable parts of learning (Nagata, 2006). Mezirow's transformative learning theory fits well within the constructivist paradigm where the learner constructs knowledge through their experiences with others and the world around them (Moore, 2005). His view relies on the rational, whereas other theories of transformative learning deal more with the imagination. (King & Wright, 2003).

Mezirow's transformative learning theory is concerned with developing autonomous thinking in students. In transformative learning a deep structural shift occurs. In fact, the three themes that are central to his theory are centrality of experiences, critical reflection, and rational discourse (Mezirow, 1991). Mezirow (1997) acknowledges that

all learning can create some change in an individual, but not all of that change is transformative in nature.

In his book, Mezirow's (2000) states that transformations often involves the following stages: Transformation begins with a distorting dilemma, then a self-examination with feelings of fear, anger, guilt, or shame and a critical assessment of an individual's assumptions. Next, the learner recognizes that one's discontent and the process of transformation are shared, which leads to the exploration of options for new roles, relationships, and actions. This stage is often followed by planning a course of action and acquiring knowledge and skills for implementing one's plans. Next, the learner begins to try new roles and to build competence and self-confidence in new roles and relationships. Finally, the learner reintegrates the new perspective into his or her life.

Transformative learning is focused on students altering their frame of reference through critical reflection and communication with others (Mezirow, 1989). In fact, the underlying notion of transformative learning is that students change their meaning scheme as they engage in reflection and discussion related to the course content.

Educators must evaluate students' ability to participate in this type of learning. Some students may not be mentally or emotionally able to grow in this kind of academic environment (Nagata, 2006). If students do not have the skills and are not carefully exposed to this process, they can feel frustrated with the learning. Another consideration for educators is the material that is being presented to the students in the course. The literature makes clear that transformational learning is not appropriate for all courses (Nagata, 2006). In addition, transformational learning in practice may not be as clearly evident as it is in theory (Moore, 2005).

Transformational learning theories range from Heidegger's analysis of human experience to Boyd's concept of individualization (Glisczinski, 2005). This research will utilize Mezirow's theory because it relies on the rational, whereas other theories of transformative learning view the intuitive, creative and emotional process as more important than the critical reflection proposed by Mezirow (Imel, 1998). In fact, central to Mezirow's theory is rational discourse and critical reflection both of which focus on individual learners' ability to think about the learning experiences. Other transformation theories are grounded in psychological work and deal with transformation of an individual's personality or social transformations (Taylor, 1998).

Other theories of transformational learning. While Mezirow's transformational learning theory has been foundational, several other theories have emerged as well. A brief discussion of some of the other theories will help provide the rationale for why this research is utilizing Mezirow's theory. Taylor (1998) emphasized the significance of the whole person in the call to reform the transformative learning process. Taylor is concerned with an individual's personal history and goals. In addition, Boyd and Myers (1988), Cranton (2000), and Dirkx (2000) believe that the human experience is neglected using the rational model in Mezirow's theory. They integrate psychology into a more holistic learning theory (Nagata, 2006). Each of these theorists is concerned with an understanding of human experiences as they impact a person's readiness to learn. This research was concerned with examining the rational process involved in transformative learning and thus intends to narrow the focus from the overwhelming theories that involve human nature to one that focused on rational changes in beliefs and assumptions.

Research has been conducted on transformational learning among graduate and undergraduate students. In addition, special populations have been examined which include English as Second Language (ESL) students and Adult Basic Education (ABE) students. Many of these studies have concluded that transformational learning is possible and that careful examination of those students who have experienced transformational learning and the programs they are involved in will provide valuable information for educational leaders (King & Wright, 2003).

Much of the research related to transformational learning has a qualitative design and there is limited quantitative research that exist (King, 1997; Merriam & Yang, 1996; Pierre, 2004). While those studies have provided valuable information in the form of narratives, researchers need to now focus their attention on quantitative information which will broaden the knowledge base.

Conclusion

There are still several unanswered questions regarding online education. While some point to the positive aspects that this type of technology can bring to education, others are concerned that student learning may not be positively impacted. One way to help resolve this issue is conducting further research on the learning of students in online courses. In addition, research needs to have a theoretical basis that helps educators to see that learning is truly occurring and that students are not simply memorizing facts.

By examining the learning experiences of students rather than looking simply at content transfer concerned with outcomes, the question of the "goodness" of online education can be addressed more completely. Mezirow's transformative learning theory will be used to discover whether evidence of transformative learning can be documented

by students who have taken graduate online courses and therefore, determine online

courses are providing meaningful learning opportunities for students

Chapter III: Methodology

The purpose of this exploratory study was to examine, through the lens of Mezirow's transformative learning theory, the learning experiences of students taking online courses. It is hypothesized that the learning experience of graduate students will show evidence of transformative learning. It is further hypothesized that students who have been enrolled in the online program longer will show more evidence of transformative learning.

Participants

The study was conducted using a convenience sample of participants, attempting to include all students enrolled in the Master's of Liberal Studies online program at the University of Oklahoma. Students in the University of Oklahoma's online Master's of Liberal Studies degree program were chosen for this study based on research which suggests that transformative learning can be examined best over the span of several courses (King, 1998). Enrollment is currently around 400 students in this program. The graduate courses are 16 week courses and the program is taken completely online. The student make-up of the courses is approximately 60% female and 40% male, the average age of a student is 38 and approximately 75% are employed full time while pursuing a degree.

Instrumentation

A lack of quantitative studies related to transformational learning (Glisczinski, 2005) provides a motive for eliciting quantitative data through a survey instrument

. King (1997), in consultation with transformative learning scholars, developed a survey to gather data related to the transformative learning experiences among adult learners in higher education. In 1998, King created further adaptations of this survey for differing populations. In an effort to gain quantitative data that would provide insight into the perception of Masters Students with respect to their learning experience, her survey instrument was adapted for use in this study. The *Learning Activity Surveys* from 1997 and 1998 (*Appendix A)* use both objective and free response questions to determine if the respondent has experienced transformation in his or her learning. After several email exchanges with Dr. King (see *Appendix B*), the survey was adapted. Dr. King was helpful in suggesting changes to the survey based on her ten years of experience conducting research related to transformative learning. A copy of the adapted survey used in this research is attached in *Appendix C*.

The survey began by asking participants to think about their educational experience and reflect on whether their values, beliefs, opinions, or expectations have changed. Then Likert type scale questions were used to elicit further information about the students learning experiences. Open ended questions were used to gather additional information about the students learning in the online program. Finally, demographic information was gathered to gain an understanding of the possible differences related to transformative learning within specific demographic groups.

Data Collection

After obtaining approval by the Institutional Review Board (see *Appendix D)*, an email was sent to 417 students. Of this number, 85 surveys were completed online, which results in a 20.38% response rate. Typical online surveys have a response rate varying

from 10% to 40%, so the 20.38% is acceptable (Schultz, 2006). Of the 85 completed surveys, nine were unusable because the surveys were not fully completed. The final number of usable surveys was 76, which is an 18.2% usable response rate.

In the email a link to the survey on *SurveyMonkey.com*, a web-site that allows researchers to create survey instruments online, was provided along with information about the study being conducted. Informed consent was implied by the student using the link to complete the survey. A second follow-up email was sent to the students during the first week of February, 2007. Students were again encouraged to participate in the study. The initial email is attached in *Appendix E* and the follow-up email is attached in *Appendix F*. Students were given a total of two months to complete the survey; the survey was removed from the site the last week of February, 2007. During the last week of February, 2007, the surveys were copied and pasted into word documents and a summary of the data were exported into Microsoft Excel. In addition, the data were entered into the *Statistical Package for the Social Sciences* (SPSS) version 13.0 statistical software in order to conduct a systematic analysis. Data were entered by the researcher instead of exported in order to allow the researcher to get a feel for the responses.

The survey was related to the ten tenets of Mezirow's theory. Mezirow's tenets are paraphrased in King's *Learning Experiences Survey* (1997) in question 1, which is an 11 item checklist and in King's survey (1998), which is a 13 item checklist. Respondents are asked to check all the statements that apply. The adaptation of the current survey changed these items to a series of questions using a five- point Likert type scale that gathered data related to respondents perceptions of their learning experiences. On the five- point Likert type scale, number "1" represented "strongly disagree", "2" represented

"disagree", "3" represented "no opinion", "4" represented "agree", and "5" represented "strongly agree". In addition, questions to obtain demographic information were used to examine respondents who experienced transformative learning and those who did not. Open ended questions were used to gain further knowledge of students' experiences. *The Learning Experience Survey* was adapted without including questions related to a specific program or those that were originally used to show causation. This study was concerned with exploring learning in online courses and was not used to show causation; therefore some questions on the original survey were omitted.

      Quantitative Data Collection. The representation of eight of Mezirow's 10 transformative learning tenets was adapted from King (1998) and corresponds to the survey items as follows: Tenet 1, Items 4 and 5; Tenet 2, Items 6 and 7; Tenet 3, Item 10; Tenet 4, Item 8; Tenet 5, Item 9; Tenet 6, Item 12; Tenet 8, Item 11; Tenet 9, Item 13. Items 16 and 17 will serve interpretive and diagnostic purposes. Items 14 and 15 will serve to assess the participants' perception of their experience in this program. Item 3 provided information about the students' character of reflection and provided additional insight into the learner. Finally, items 21, 22, and 23 are used to gather demographic information, which allows the researcher to see if transformative learning varies for learners of different ages or genders or is due to the number of semesters the learner has been in the program. Table 1 illustrates how the survey questions relate to Mezirow's tenets as well as the *Learning Experiences Survey.*

Table 1

Survey corresponding to Mezirow's transformative learning tenets and Dr. King's *Learning Experiences Survey.*

Survey Question	Mezirow's Tenets	Dr. King's *Learning Experiences Survey* Question
1		2
2		3
3		6
4	1	1a
5	1	1b
6	2	1c
7	2	1d
8	4	1e
9	5	1f
10	3	1g
11	8	1h
12	6	1i
13	9	1k
14		
15		
16		1m
17		
18		
19		5
20		
21		8
22		13
23		14

Qualitative Data Collection. Qualitative data were collected from questions 2, 18, 19, and 20. Item 2 "improves the validity of the tool by rephrasing the other items in the survey" and "it focuses the item on one experience of transformative learning" (King, 1998, p. 7). Items 2 and 19, which are free responses questions, help to verify that the transformative experience was related to the individuals' educational experiences. Items 2, 18, 19, and 20 also provide the opportunity for themes to develop related to the students' transformative learning experiences.

Validity and Reliability. King (1997) addressed the issue of content and construct

validity by using an array of methods of inputs and evaluation of the instrument including

a pilot study, by formative adaptation of the instrument through these pilot studies, and

by adaptations suggested by a panel of experts. King has conducted numerous surveys to

determine if transformative learning is happening in various educational settings with a

number of special populations (King, 1998). Her *Learning Experiences Survey* has been

used in several studies as a tool to look at transformative learning. Reliability was

addressed through the use of "several individual evaluations" that "are used to arrive at

the final evaluation" (King, 1998, p. 24). This vast experience helps with the issues of

validity and reliability. Additionally, in the study *Toward a Better Understanding of*

Adult Learning, Pierre adapted this survey using a Likert type scale and conducted pilot

studies to ensure the validity and reliability of this format change (2004). Anonymity

was also used to help protect the validity of the study.

Analysis

*S*ummary data were downloaded from *SurveyMonkey.com* and imported to

Microsoft excel. Then, the data were entered into the *Statistical Package for the Social*

Sciences (SPSS) version 13.0 statistical software in order to conduct a systematic

analysis. This data analysis was conducted during March, 2007. The individual responses

to the open ended questions were copied and pasted into word documents and analyzed

for themes. The analysis of both the quantitative and qualitative data will be discussed in

this section.

Analysis of Quantitative Data. Statistical data including mean, median, and

standard deviation were used to present and interpret the findings. Summative

frequencies and percentages of respondents on the Likert type scale were used to indicate

fundamental values for the question in the questionnaire that correspond with Mezirow's

tenets.

In this study, survey results from questions 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,

15, 16 and 17 were summed to develop a transformative learning score (TLSCOR).

While other questions in the survey were related to the central themes of Mezirow's

theory, they were not included in the summed score. The questions used for the

transformative learning score were chosen due to the relation to King's survey and

analysis.

Question 1 was valued at "1.5" for a no response and "4.5" for a yes response, in

order to have a consistent scale for the summed items. Questions 4, 5, 6, 8, 9, 10, 11, 12,

13, 14, 15, 17 were valued at "5" for Strongly Agree, "4" for Agree, "3" for No opinion,

"2" for Disagree, and "1" for Strongly Disagree. For questions 7 and 16 due to the

reverse wording the values were assigned "1" for Strongly Agree, "2" for Agree, "3" for

No opinion, "4" for Disagree, and "5" for Strongly Disagree. These values were then

summed for each individual survey in order to get a score. *Figure 1* illustrates the

distribution of transformative learning scores. A visual inspection of the graphical

representation of the data was used to look for natural breaks (US Bureau of Census,

2002).

Figure 1 Transformative Learning Scores
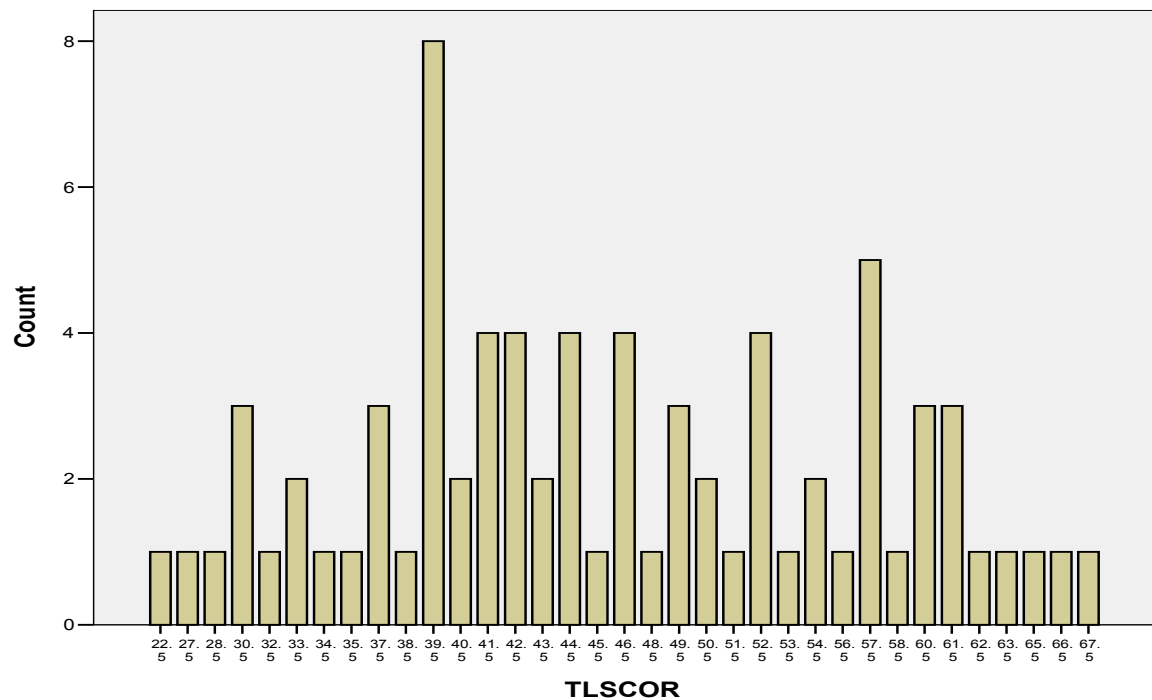
A frequency table (Table 2) was constructed and analyzed for natural breaks in

the cumulative response percentages.

Table 2 Frequency Table of TL Scores

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22.5	1	1.2	1.3	1.3
	27.5	1	1.2	1.3	2.6
	28.5	1	1.2	1.3	3.9
	30.5	3	3.5	3.9	7.9
	32.5	1	1.2	1.3	9.2
	33.5	2	2.4	2.6	11.8
	34.5	1	1.2	1.3	13.2
	35.5	1	1.2	1.3	14.5
	37.5	3	3.5	3.9	18.4
	38.5	1	1.2	1.3	19.7
	39.5	8	9.4	10.5	30.3
	40.5	2	2.4	2.6	32.9
	41.5	4	4.7	5.3	38.2
	42.5	4	4.7	5.3	43.4

	43.5	2	2.4	2.6	46.1
	44.5	4	4.7	5.3	51.3
	45.5	1	1.2	1.3	52.6
	46.5	4	4.7	5.3	57.9
	48.5	1	1.2	1.3	59.2
	49.5	3	3.5	3.9	63.2
	50.5	2	2.4	2.6	65.8
	51.5	1	1.2	1.3	67.1
	52.5	4	4.7	5.3	72.4
	53.5	1	1.2	1.3	73.7
	54.5	2	2.4	2.6	76.3
	56.5	1	1.2	1.3	77.6
	57.5	5	5.9	6.6	84.2
	58.5	1	1.2	1.3	85.5
	60.5	3	3.5	3.9	89.5
	61.5	3	3.5	3.9	93.4
	62.5	1	1.2	1.3	94.7
	63.5	1	1.2	1.3	96.1
	65.5	1	1.2	1.3	97.4
	66.5	1	1.2	1.3	98.7
	67.5	1	1.2	1.3	100.0
	Total	76	89.4	100.0	
Missing	System	9	10.6		
Total		85	100.0		

Several breaks occurred in the cumulative percentage data. Some of those breaks are between the score of 38.5 and 39.5 (19.7% and 30.3%), which was a 10.6% increase from the previous score; between the score of 45.5 and 46.5 (52.6% and 57.9%), which was a 5.3% jump from the previous score; and between the score of 56.5 and 57.5 (77.6% and 84.2%), which was a 6.1% increase. In addition, the breaks at the score of 40.5 and 49.5 correspond to an approximate 33% break into three distinct categories. This examination as well as related literature helped determine the cut score used in this study.

This analysis resulted in respondents with a transformative learning score (TLSCOR) of 50.5 or more, which is a theoretically appropriate cut score based on related literature, being coded "2," evidence of transformative learning, while a score lower than 50.5 was coded "1," no evidence of transformative learning. The data were

then analyzed for effects and correlations. Individual effects were studied using a Chi-Square test of significance, seeking a p-value < .05, and crosstabulations were conducted between each of the demographics and those coded with a "1" or "2." As a result, 38.5% of the respondents showed evidence of transformative learning. This number is consistent with other studies of transformative learning which show evidence of transformative learning from 30% to 40% (Glisczinski, 2005; King, 1997). These results will be presented in the next chapter.

Analysis of quantitative data is divided by demographics statistics, descriptive statistics, and the transformative score. Each of these was analyzed to draw conclusions about the participants and to answer the research question of whether Master's students in an online learning environment show evidence that this learning environment is transformative. Each of these areas will be discussed further in chapter 4.

Analysis of Qualitative Data. In addition to the quantitative data, open ended questions in the survey provided the opportunity for qualitative data as well. The open responses from questions 2, 18, 19, and 20 were then analyzed for themes. To gain an understanding of the emerging patterns, the data were collected and examined using content analysis methods to help reduce the data set to a manageable size for analysis. According to Patton (2002), "Content analysis is used to refer to any qualitative date reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings" (p. 453). Developing some manageable classification or coding scheme was the first step of analysis. Without classification there is chaos and confusion. Therefore the researcher needed to classify the data, "Content analysis, then, involves identifying, coding, categorizing, classifying,

and labeling the primary patterns of data"(Patton, 2002, p. 463). Pawing was used to initially review the responses to the open ended questions in the online survey. Using this technique the researcher was able to get a feel for the text and highlight some key phrases. After reading through the responses a number of times patterns appeared. As the patterns began to emerge, those patterns were documented and common themes were developed. A pawing technique was used to go through the texts and mark them up with different colored highlighter pens. Then, pile sorting was used in order to verify the emerging themes. These themes will be discussed further in Chapter 4.

Demographics of Respondents

The sample of respondents was categorized by three factors; age, gender, and number of semesters in the online program.

Age. Table 3 illustrates the age distribution of the respondents. As was expected, most of the participants were between the ages of 30 and 49.

Table 3: Age Distribution

	AGE	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-24	3	3.5	4.6	4.6
	25-29	4	4.7	6.2	10.8
	30-39	26	30.6	40.0	50.8
	40-49	20	23.5	30.8	81.5
	50-59	11	12.9	16.9	98.5
	60-69	1	1.2	1.5	100.0
	Total	65	76.5	100.0	
Missing	System	20	23.5		
Total		85	100.0		

Due to limited responses, the distribution of the categories 21-24 and 25-29 were combined to form one category. In addition, the categories 50 -59 and 60 -69 were combined to form a 50 + category. This age grouping is shown in Table 4.

Table 4: Age Distribution with category groups

	AGE GROUPS	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	21-29	7	8.2	10.8	10.8
	30-39	26	30.6	40.0	50.8
	40-49	20	23.5	30.8	81.5
	50+	12	14.1	18.5	100.0
	Total	65	76.5	100.0	
Missing	System	20	23.5		
Total		85	100.0		

Gender. Of the respondents, 27.7% were male and 72.3% were female. This result was expected due to the fact that more females than males are enrolled in the Masters of Liberal Studies online program.

Semesters in the Program. Responses to the number of semesters enrolled in the program are presented in Table 5. The mean for the distribution of semesters enrolled was 5.09 (M = 5.09), the median was 4.00 (MD = 4.00) and the standard deviation was 3.449 (SD = 3.449). These statistics show that while many participants were enrolled in the program fewer than five years, there was a fairly large variance of responses. Many of the students were within their first four semesters of study, 50.8%, while only 15.4% of the respondents had been enrolled in the program for nine semesters or more.

Table 5: Semester Enrolled

	SEMESTERS	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	1.2	1.5	1.5
	1	8	9.4	12.3	13.8
	2	7	8.2	10.8	24.6
	3	5	5.9	7.7	32.3
	4	12	14.1	18.5	50.8
	5	11	12.9	16.9	67.7
	6	5	5.9	7.7	75.4
	7	2	2.4	3.1	78.5

	8	4	4.7	6.2	84.6
	9	1	1.2	1.5	86.2
	10	4	4.7	6.2	92.3
	12	3	3.5	4.6	96.9
	14	1	1.2	1.5	98.5
	16	1	1.2	1.5	100.0
	Total	65	76.5	100.0	
Missing	System	20	23.5		
Total		85	100.0		

Figure 2 shows the graphical distribution of the semesters enrolled by respondents. It should be noted that some respondents listed the years they had been in the program. Those responses were converted by estimating 2 semesters per year.

Figure 2 Semesters Enrolled in Program

Number of semesters in the online program
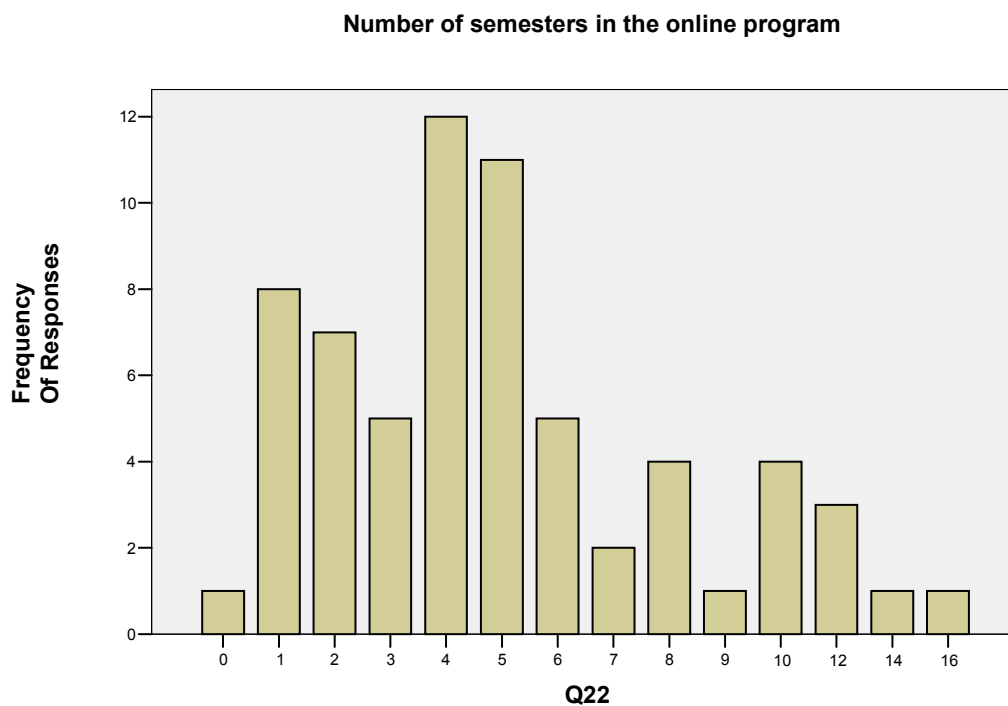
Due to the few responses in certain categories, the semesters enrolled were also grouped in order to run further analysis. The resulting groups are show in Table 6.

38

Table 6: Distribution of Semester Groups

SEMESTER GROUPS		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-4	33	38.8	50.8	50.8
	5-8	22	25.9	33.8	84.6
	9+	10	11.8	15.4	100.0
	Total	65	76.5	100.0	
Missing	System	20	23.5		
Total		85	100.0		

There were very few surprises in the demographic data. The patterns that were shown in the data were consistent with the demographics of the population of students in the Master's of Liberal Studies program at The University of Oklahoma. Most of the participants were female. In addition, most were between the ages of 30 and 49. The data regarding the number of semesters in the program also was somewhat expected. While some Masters programs take more time to complete, the majority can be completed in two to three years. In this study, most of the participants were within their first four semesters of study which would correspond to the first two years of study. This information was analyzed to determine if the study participants reflected the general population of students in the program. From the frequency tables, it is clear that the participants do mirror the general population used for this study.

Summary

This study was interested in examining the learning experience of students enrolled in the Master's of Liberal Studies program at the University of Oklahoma. Mezirow's transformative learning theory was related to the survey questions in order to determine if students in this online program were experiencing this type of learning. A

discussion of the methods used to conduct the survey was provided. The demographics

revealed no surprises. Subsequently, a continuation of the process of analysis and the

findings of both the quantitative and qualitative data will be presented in the next chapter.

Chapter IV: Findings

This chapter presents the results of the survey concerning *Transformative Learning in Online Courses*. The research was conducted with Master's of Liberal Studies students from the University of Oklahoma completing their degrees in an online format. Students in this program were surveyed using an online survey designed to elicit information about their learning experience. The research question guiding this study was: Is the learning experience of graduate students in an online program transformative? The data revealed that many participants experienced some evidence of transformative learning, such as critical reflection, reexamining their understanding of the world, and understanding that others were also questioning their beliefs. The data further revealed that there was a significant association between the number of semesters a participant was in the program and the evidence of transformative learning.

First, descriptive statistics, including a review of demographic data, will be presented and analyzed. Then, statistical test will be used to discuss the evidence of transformative learning. Finally, the results and analysis of the open ended questions will be given.

Descriptive Statistics

After the data were entered into SPSS, descriptive statistics were run to examine

responses to each question in the survey, except for the open response questions. Mean, median, and standard deviation were first examined for the survey questions. Mean and median help to determine how each participant responded on each individual Likert type scale question. This type of data is helpful in determining how the average participant responded to each question. Standard deviation then helps to determine how varied the responses are to the questions. By examining this descriptive information, conclusions about the responses to each question can be observed. Next, frequency tables were generated for each question. Frequency tables are a visual way to display summative data with regard to each question. In addition to the frequency of each response, percentage information is reported in the frequency tables which make it easier to determine trends in the statistical data.

As was previously reported, descriptive statistics were used to make determinations about the population of participants with respect to the general population used in this study. Most participants in the study were female, between the ages of 30 and 49, and had been in the online program for less than five semesters. This information was consistent with the general population in this online program.

Analysis of Descriptive Statistics. Statistical data was collected from each question including frequencies, means, medians, and standard deviations (see *Appendix G)*. Further analyses of the descriptive statistics from the Likert type scale questions relate to transformative learning are presented in the following paragraphs. First, 95.3% of the respondents believed they were the type of person that thought back over past experiences. This question helped the researcher to gain an understanding with respect to the reflective nature of the type of learner. The respondents revealed themselves to be the

type of learner that reflects back over previous experiences. Mezirow's transformative

learning theory discuss the importance of self examination and critical reflection in

determining if the learner is ready to experience this type of learning (Mezirow, 1991).

The questions related to changing and questioning views and beliefs were more

likely to generate disagreement. The literature related to learning theory states that

learners are less likely to admit or recognize specific changes in their values or beliefs

(Moore, 2005). The disagreement was apparent when examining several of the Likert

type scale questions, when asked if they no longer agreed with their beliefs, 57.9%

responded "disagree" or "strongly disagree" as is shown in *Figure 3.*

Figure 3 Response to survey question 6
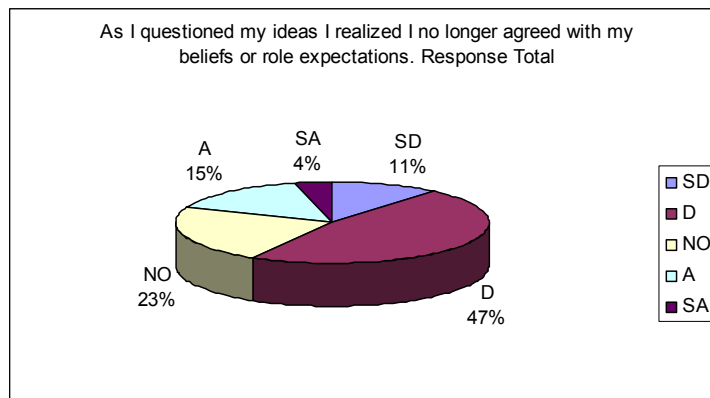
In fact, most stated that they still held the same beliefs and values they had upon

entering the program. Moreover, 70.7% indicated that they still "agreed" or "strongly

agreed" with their beliefs, shown in *Figure 4.*

Figure 4 Response to survey question 7
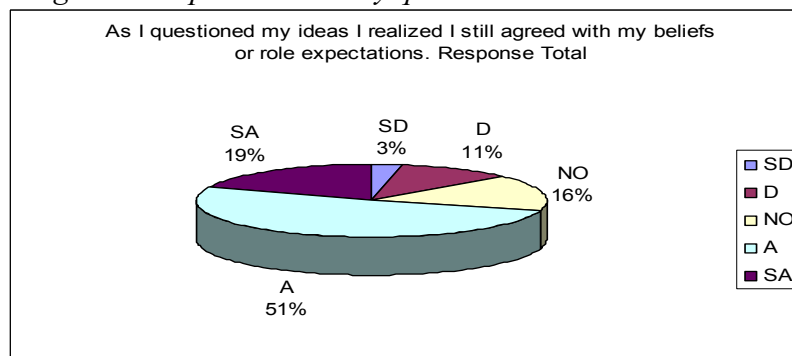
However, participants did agree that others in the program had questioned beliefs or values since beginning the program. In response to the eighth question of the survey, 52% of the participants either "agreed" or "strongly agreed" that other people questioned their beliefs (see *Figure 5*).

Figure 5 Response to survey question 8
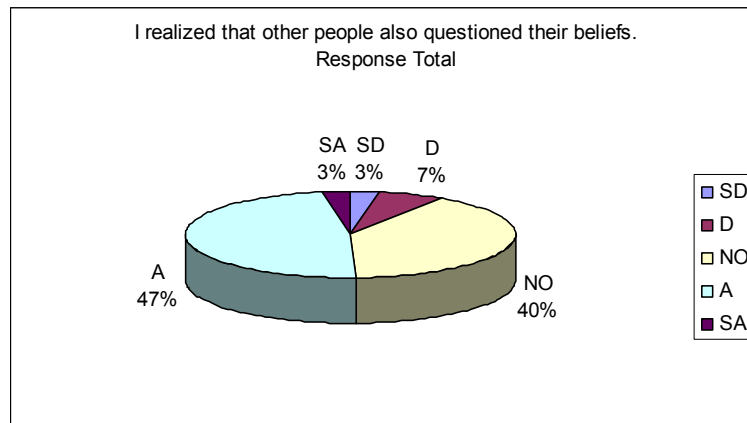
The responses to these questions help to determine to what extent the participants experienced transformative learning. Each of these questions was related to the tenets in Mezirow's transformative learning theory. While examining the responses to the questions about changing views and beliefs might lead one to determine that the participants did not experience transformative learning, related literature shows that transformations could still have taken place (King, 1997, Moore, 2005). In addition, the literature suggest that the responses seen in these questions might be due to the fact that personal change is sometimes not a conscious decision and many students are unlikely to recall a specific change to their views or beliefs, even if one has occurred (Moore, 2005).

Evidence of some of Mezirow's tenets of transformative learning can be seen in the responses to questions 14 through 17. In question 14, 85.3% of the respondents "agreed" or "strongly agreed" that their learning activities help them to use critical

reflection to solve problems encountered in their personal and professional activities, as shown in *Figure 6*. In addition, the mean for this question was 4.12, which shows that many respondents used critical reflection. Mezirow's transformative learning theory espouses that this is a key component to evidence of student learning (Taylor, 1998).

Figure 6 Response to survey question 14
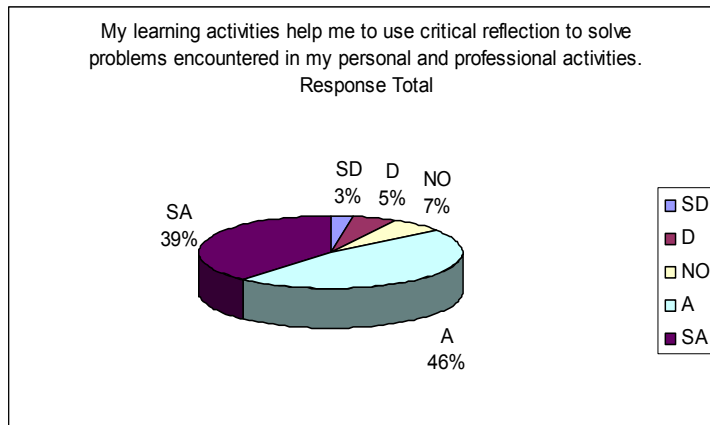
In addition, 70.7% "agreed" or "strongly agreed" that the learning process had prompted them to reexamine their understanding of the world, as shown in *Figure 7*. This is again evident when examining the mean score for question 15. The mean of 3.76 indicates that many participants feel they have reexamined their understanding of the world as a result of the learning process.

Figure 7 Response to survey question 15
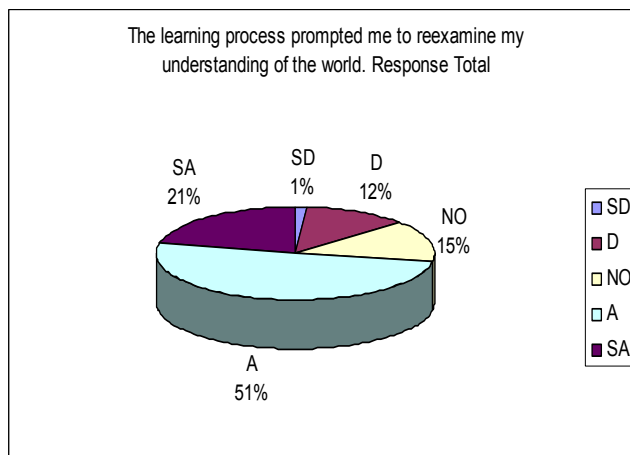
In response to the statement that there has been no change in my way of thinking since I

have been in this online program, 65.4% "disagreed" or "strongly disagreed" which is

shown in *Figure 8*.

Figure 8 Response to survey question 16
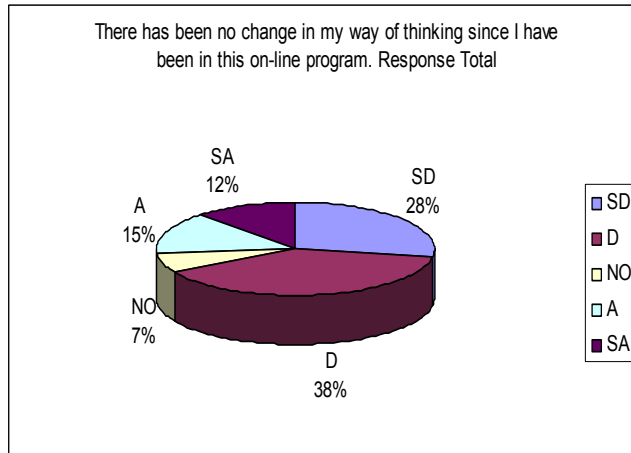
The literature discusses the importance of helping to foster these types of changes in

students as being vital to enhancing student learning (Moore, 2005) and helping students

to grow and expand their views is crucial to fostering several of the tenets central to

Mezirow's theory (Nagata, 2006). Questions 14 through 16 clearly show that participants

used critical thinking, reexamined their understanding of the world, and felt as if they had

changed as a result of this online program. Each of these areas is tied to Mezirow's

transformative learning theory and the tenets that were used as a theoretical framework

for this study.

Finally, in the last Likert type scale question in the survey, participants were

asked if they felt that their online program was transformative, 73.7% either "agreed" or

"strongly agreed" (see *Figure 9*). When examining the descriptive statistics, a mean score

of 3.86, a median score of 4.00 and a standard deviation of only .875, it is evident that

many participants felt the online program was transformative. It should be noted that there was no definition of transformative provided for the participants. The researcher did not want to influence the answers to this question by providing a definition.

Figure 9 Response to survey question 17
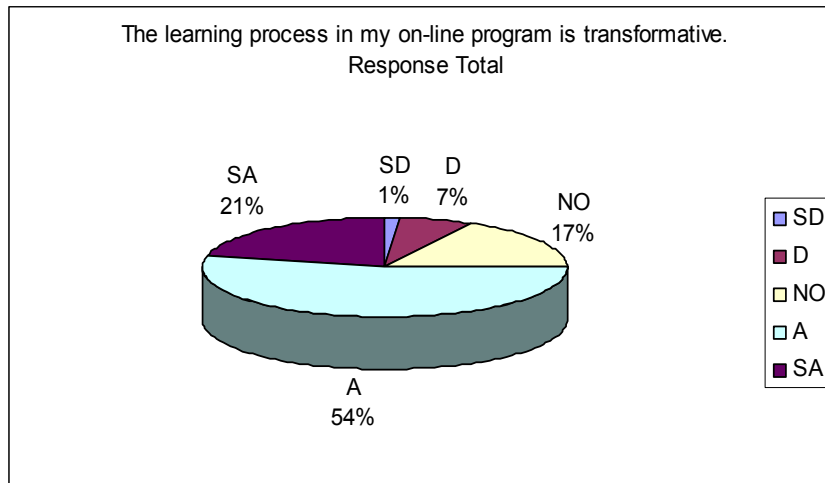
Evidence of Transformative Learning

Questions 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17 of the survey were summed to develop a transformative learning score (TLSCOR). In order to examine evidence of a relationship between the demographic parameters and evidence of transformative learning, crosstabulations were conducted between each of the demographics (questions 21, 22, and 23) and respondents that were coded a TL of "1," no evidence of transformative learning, and a TL of "2," evidence of transformative learning. In this analysis, 65 respondents were included. The results are shown in Table 7.

Table 7: Crosstabulations for Questions 21, 22, 23

GENDER		TL		Total
		No evidence TL	Evidence of TL	
Q21	Male	11	7	18
	Female	29	18	47
Total		40	25	65

		TL		Total
SEM GROUPS		No evidence TL	Evidence of TL	
SMGR	0-4	26	9	35
	5-8	12	9	21
	9+	2	7	9
Total		40	25	65

		TL		Total
AGE		No evidence TL	Evidence of TL	
AGEGR	21-29	7	0	7
	30-39	14	12	26
	40-49	12	8	20
	50+	7	5	12
Total		40	25	65

The results showed that 38.9% of males and 38.3% of females showed evidence of transformative learning in this online program. Some would speculate that there might be an association between gender and transformative learning; however that does not appear to be the case. Additionally, other studies have also reported similar results with respect to gender at approximately 35% of participants of both genders showing evidence of transformative learning (Glisczinski, 2005; King, 1997).

However, when examining the crosstabulation of age with evidence of transformative learning, a trend seems to appear as 0% of respondents 21-29 showed evidence of transformative learning while, 46.2% of respondents age 30-39 and 40.0% of respondents age 40-49 showed evidence of transformative learning. The results for respondents 50-69 was 41.7% showing evidence of transformative learning. This apparent association will be further examined below using Chi-Square and Likelihood ratio tests, both of which are statistical test that examine associations in the data.

Other studies have results that vary related to the evidences of transformative learning and the demographic category of age. In a study looking at adult learners, King

(1997) found results similar to this study with the highest percent of transformative

learning occurring in participants between the ages of 30 and 39. In another study

focused on adult learners, Pierre (2004) found the largest evidence of transformative

learning in participants between the age of 46 and 55. However, in a study examining

teacher education, the results showed the highest percent of transformative learning in the

25 – 29 age group, with only a 25% evidence in participant over 30 (Glisczinski, 2005).

When examining evidence of transformative learning in association with the

number of semesters in the Masters of Liberal Studies online program, it is apparent that

respondents enrolled in the program longer show a stronger evidence of transformative

learning. Students enrolled in more than 12 semesters showed 100% evidence of

transformative learning, although this is misleading due to the fact that only two

respondents fit into this category. Students enrolled between 9 and 12 semesters showed

77.8% evidence of transformative learning. The results for students enrolled from 5 to 8

semesters were 42.9%, and the results for student enrolled four or fewer semesters were

only 25.7%. Again, this will be discussed further when looking at the results of the Chi-

Square test.

Chi-Square. Further analysis was conducted to examine the statistical significance

of the demographic information in relation to transformative learning. A Chi-Square test

was administered on the survey questions in March, 2007. Due to the restriction that each

cell must have a minimum of five members, some of the data was grouped as was

previously discussed. In question 22, respondents who were enrolled in four semesters or

less were grouped (0-4), respondents who were enrolled in five to eight semesters were

grouped (5-8), and respondents who were enrolled in nine or more semesters were

grouped (9+). In question 23, respondents age 21 to 24 and 25 to 29 were grouped (21-29) as well as respondents 50-59 and 60-69 were grouped (50+). Table 8 illustrates the significance level of each question.

Table 8: Chi-Square Results for Demographic and Evidence of TL

GENDER	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.002(b)	1	.965		
Continuity Correction(a)	.000	1	1.000		
Likelihood Ratio	.002	1	.965		
Fisher's Exact Test				1.000	.591
Linear-by-Linear Association	.002	1	.965		
N of Valid Cases	65				

SEM GROUPS	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.452(a)	2	.015
Likelihood Ratio	8.496	2	.014
Linear-by-Linear Association	7.924	1	.005
N of Valid Cases	65		

AGE	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.097(a)	3	.165
Likelihood Ratio	7.505	3	.057
Linear-by-Linear Association	1.096	1	.295
N of Valid Cases	65		

With respect to gender, the Chi-Square test for significant association indicates a p-value of .965 which is not sufficient to show that there was an association between gender and evidence of transformative learning.

However, when looking at the association between the number of semesters a respondent has been enrolled in the program and transformative learning, the Chi-Square test indicates a p-value of .015, which is statistically significant at the $p < .05$ level. Therefore, the speculation in this study that students who had been enrolled longer in the

program would show more evidence of transformative learning does in fact appear to be the case.

The association between age and evidence of transformative learning that was shown when examining the descriptive crosstabulation does not appear to be statistically significant when looking at the Chi-Square test, with a p-value of .165. The Likelihood ratio is an alternative to the Chi-Square and while it is computed in a different way, it is interpreted the same. The Likelihood ratio test shows the maximum likelihood estimation. Based on the Likelihood ratio, the p-value is .057, which while not significant at p < .05, shows why the descriptive data alluded to an association.

Open Ended Responses

The open response questions were asked in order to illicit additional information related to the participants' learning experience and their perception of the transformative nature of their online program. The researcher copied the responses into a word document, printed and then pawed through the responses. This allowed themes to emerge.

The second question of the survey asked students to briefly describe an experience where the respondents believed they had experienced a time when they realized that their values, beliefs, opinions or expectations had changed. Forty-three respondents provided descriptions. The eighteenth question of the survey asked students in what ways the learning activities in their online program had helped them to use critical reflection to solve problems. Critical reflection is one of the key components to Mezirow's transformative learning theory. Fifty-three of the surveys included comments for this question. The nineteenth question was stated: Thinking back to when you first

realized that your views or perspectives had changed, what did your being in this online program have to do with the experience of change? Fifty surveys included responses to this question. The final open response question asked the participants to reflect on the ways the learning process in this online program has prompted them to reexamine their understanding of the world. Fifty-one of the participants responded to this question.

The responses to the four open ended questions show evidence that this online program is in fact causing students to think more critically. Evidence of transformative learning can be seen in many of the participants' responses. The responses were analyzed and themes were evident in each.

Question 2, A Brief Description of Change in Values, Beliefs, Opinions, or Expectations. The results showed three major themes: 1) respondents were more open to other opinions and cultures, 2) respondents were more reflective in their educational settings, and 3) respondents believed that interaction with others including instructors was critical to the changes that had taken place.

First, many respondents felt that their online experience had caused them to become more open, both to other cultures and to other opinions. As one respondent stated, "The more information that I take in, the more I become open to new ways of thinking." Several participants believed the material presented to them in this online program helped to foster the change. Respondents also stated, "The material in the classes has made me more open-minded about certain subjects." Fifteen of the responses in some way dealt with the respondent being more open as a result of their online experience.

Next, respondents credited the online program with making them more reflective in relation to their education. One respondent added, "I would say that I was forced to examine more deeply my beliefs and opinions, I was challenged to find more evidence to support my opinions." Again, the material that was presented provided the opportunity for the reflection. "I come in to contact with more liberal views which have allowed me to reflect on my views and adjust accordingly, if I sense the need." Several participants alluded to the fact that they were able to grow in their understanding as a result of reflecting about the program material. As is evident by this response, "I understood that I didn't know as much as I did and that I had a lot of room to grow." This theme was probably best stated by the respondent who wrote, "While doing online research there have been several instances where I have sat back and analyzed my beliefs and sometimes changed."

Finally, respondents discussed the importance of interacting with others in order to foster their own education. As indicated in the review of literature, interaction is a key part of any program and is especially important in an online environment (Allen & Seaman, 2005; Imel, 1998). Respondents felt that by reflecting on the opinions of others and participating in discussions with classmates and instructors, they were able to experience a change. "I realized that human interaction is extremely important to the learning process."

Question 18, Critical Reflection in Problem Solving. Analysis of the responses provided the following three themes from respondents. The most common response dealt with the learning activities broadening the learners' perspectives; next the respondents discussed a deepening in their awareness and their ability to analyze materials. Finally,

respondents wrote about how the learning activities caused them to be more committed to research.

Broadening the learners' perspectives was one of the most common responses related to the students approach to problem solving. One respondent stated, "Learning new ways of approaching a problem has helped. Also, viewing a problem in a different light has helped to solve problems. I learned these different ways of approaching and viewing a problem through my studies." Participants stated they would evaluate all possible solutions before attempting to solve problems. Another key point expressed was that with increased exposure to problem solving, participants were able to view problems in a variety of ways, "The different perceptions, theories, and ideas that I have learned from my courses have given me additional tools to analyze all manner of problems."

Other responses included comments about how their online program had given them more time to reflect and analyze material to solve problems. As the literature stated, one of the things students like best about learning in an online environment is the flexibility these courses allow with respect to time (Dove, 2006). In addition, during this process the learners' felt that the learning activities created a deeper awareness of the problems and possible solutions. As indicated by the following comments: "Readings and case studies have given me a new insight on how to handle problems," "This format has required me to take a little more time in finding solutions to problems," and "I am able to think situations out more effectively. I have become better at organizing my thoughts" were indicative of the participants' comments.

The last theme that emerged from the data was that the learners were more committed to research. The respondents felt less impulsive and valued the ability to

conduct research to approach problem solving, "It has allowed me to be more committed to the activities that I do. And it has made me aware of what I can and cannot accomplish by commitment." Other comments about research were stated, "…understanding the importance of research and assessment in decision outcomes" and "(it) helped me to be less impulsive and research more."

Question 19, Change in Views or Perceptions. Again, three main themes emerged. The themes were: 1) Provided opportunities that pushed me to explore, 2) Caused me to rethink and become more open, and 3) Did not cause a change in my views or perspectives.

While some students seemed reluctant to admit a shift in their perspectives, many of the 50 respondents felt that the online program pushed them to review material that they otherwise would not have read. They also expressed that much of the information they were reading caused them to rethink their own views. Interactions with classmates with a variety of perspectives were also mentioned as pushing them to explore their meaning schema, "It pushed me to explore topics that didn't interest me in some instances, and I learned more and then that topic was more interesting. I became profoundly aware of how large and how small our world really is." Other comments centered on the "more liberal information" they were exposed to and the books they were forced to read which they otherwise would not have.

Another theme that students felt contributed to them changing their views or perspectives was that the program caused them to be more open in their thinking. This theme is related to the one above, but many responses indicated that this went beyond

reviewing material to opening up the world to them, "if anything my perspective of the world and how leadership affects it has expanded."

Other responses related directly to a view or perspective that was changed, for example "In terms of my views or perspectives, I began to question the existence of a higher power after reading…" Participants also expanded upon the opportunity to think outside the normal, and being encouraged to do so, which caused them to change their views. As one wrote, "The assignments encourage me to reflect on the new information presented and relate this to old information from my current experiences. I have found some of my troubles can be managed better by adopting ideas from my studies."

Others discussed that there was no specific event that caused the change, but rather it was an ongoing process, "It was a gradual change so I don't know when I first realize it. While performing research for various papers I started understanding other peoples ideas better, I have an open mind to their ideas. I am able to discuss other views, see merit in them and sometimes my opinions are changed."

While many of the participants felt they had experienced a change, still others did not feel like they had changed their perspectives. "I don't think my learning activities have had a major impact on my life, rather life learning and my current situation living abroad and adjusting to the new community have had an impact on my abilities", "My views and perceptions have not changed. Rather, they have actually been reinforced with additional knowledge to back up my beliefs", and "I do not think my views have changed very much. I did learn a bit more about the social inequities in out country, but already knew they existed" were indicative of some responses.

Question 20, Reexamine Understanding of the World. Several comments were made regarding a better understanding of the world. In addition, many participants felt they were more patient in examining and researching rather than simply accepting material and opinions presented to them. Similar to the increase in questioning, many participants felt they were more cynical about others views and opinions even when they were stated as fact. These two major themes were expressed throughout the responses to this question. "It taught me how to be patient, to look, research, and examine before making any kind of decisions or judgments." And, "(it) led me to examine more ideas – took me out of the black/white thinking and showed that there are many varying shades of gray." Several participants wrote about how they did not accept information "on face value" and "listen to what I hear with a more critical ear."

Summary

Most educators agree that graduate programs should be about developing autonomous thinkers who are no longer willing to uncritically assimilate information presented to them (Imel, 1998). This research showed that many students in this program are no longer willing to accept information "on face value", but rather are more critical, more open to the opinions of others and are more willing to research. In addition, the participants in this research showed evidence of transformative learning. In fact, about 39% of all the participants were categorized as showing evidence of transformative learning, which included 39% of males and 38% of females. In addition, there was an association between the number of semesters a participant had been enrolled in the program and their incidence of transformative learning.

Chapter V: Study Summary, Conclusions, Recommendations for Further Study, and Discussion

Using a survey instrument designed to elicit both quantitative and qualitative data; this study examined online learning through the lens of Mezirow's transformative learning theory. This study was interested in determining if students in an online program would show evidence of transformations in their learning. A summary of the study will be examined first. Next, conclusions about the findings will be shared. In addition, areas of further study related to transformative learning and online courses will be presented. And finally, a discussion of the study will follow.

Study Summary

The purpose of this study was to examine an online Master's level program in order to discover if transformative learning was evident. There is a divide within academia related to the benefit of online education. While some experts believe there is value in this type of delivery format, others question those benefits. There is a trend within academics to call for a transformative shift in what and how universities create knowledge production (Moore, 2005). While more and more online programs are appearing in higher education institutions, there is still a question of how much learning is truly occurring in this format. More needs to be done to determine whether students are provided the opportunity for true learning to occur. As stated by Glisczinski (2005), "America is suffering from a poverty of understanding" (p ii). Scholars must do more to enrich students and focus their efforts on understanding rather than mere memorization. This

research aimed to discover if transformative learning was in fact taking place in an online Master's level Liberal Studies program.

A brief literature review provided the background on Mezirow's transformative learning theory, which provided the lens for this study. In addition, literature related to both the positive and negative opinions about online education was presented. Some experts believe that students are learning in an online format, while other experts disagree. This leads to a review of literature related to both positive and negative perceptions of online education. The divide provides the opportunity to examine student learning in a whole new context. Mezirow's transformative learning theory, which is centered on critical reflection and rational discourse, provides an appropriate lens for that examination. When looking at student learning, it is important not only to consider the content transfer but also the process (Moore, 2005).

Findings. After analyzing the data, there was support that 38.5% of the study participants demonstrated evidence of transformative learning. While age and gender did not have a statistically significant association with transformative learning, the number of semesters the students had been enrolled did show an association. As was hypothesized, the longer a student was in the online program the more transformative learning was evident. The survey questions that were developed from Mezirow's tenets of transformative learning indicated there were some aspects of transformation taking place. For example, participants indicated that they used critical reflection in problem solving, that they reexamined their understanding of the world, and in many cases questioned their beliefs and values.

In response to both the open ended questions and the Likert type scaled questions, participants indicated evidence of specific tenets associated with Mezirow's transformative learning theory. There was evidence that participants were critically assessing their assumptions, exploring options for new roles and relationships, provisionally trying out new roles, and integrating some of the new perspectives into their lives. These results again reflect other studies (Glisczinski, 2005; King, 1997; King & Wright, 2003; Pierre, 2004) and reinforce findings that there was evidence of transformative learning in this program. In addition, when asked about their perceptions of the online program, 73.7% of the participants felt it was transformative.

The survey also allowed for further exploration of transformative learning through the open response questions. Several of the themes that developed were consistent with the literature related to transformational learning theory. In response to question 2, which asked the respondents to briefly describe an experience when they realized their values, beliefs, opinions, or expectations had changed; the most common responses were related to participants becoming more open to other opinions and cultures and more reflective in their educational studies. In questions 18 through 20, which asked about how the learning activities helped the respondents to use critical reflection, to recall a change in views or perspectives, and to reflect on how the learning process prompted them to reexamine their understanding of the world; the responses were similar to respondents' discussion of a deepening awareness, a tendency to reexamine their understanding of the world, and a commitment to research rather than accepting information at "face value."

The major findings of this study were from four key areas; demographics, descriptive statistics, open ended responses, and statistical test.

- Demographics

  o Age: Most of the participants, 54.1%, in the study were between the ages of 30 and 49. Only 14.1% were older than 50 and 8.2% were between 21 and 29. This reflected the general population of students in this online program.

  o Gender: Most of the participants, 72.3%, were female. Again, the majority of the students in this online program were female, so the survey population is reflective of the general population in this study.

  o Semesters enrolled in the program: The majority of the participants had been enrolled in the program fewer than five years, 50.8%. Only two were in the program longer than 12 semesters and only 15.4% were enrolled longer than nine semesters.

- Descriptive Statistics

  o Almost all of the participants reported themselves to be reflective in nature. In fact, over 95% said they were the type of person who looked back over previous experiences.

  o Many participants felt their values, beliefs, and opinions had not changed as a result of this online program. But many also stated that they felt others in the program questioned their beliefs. In fact, 58% disagreed that they no longer held the same beliefs, while 71% agreed that they still held the same beliefs or role expectations. Additionally, 52% believed that other students in the program had questioned their beliefs.

o Almost three-fourths of the participants felt their online program was transformative. There was clear evidence when looking at the Likert type scale questions that students were experiencing transformations as defined by Mezirow's tenets of transformative learning.

- Open ended responses

    o Participants felt they were more open to other opinions and cultures as a result of the online program.

    o Students credited the online program with broadening their perspectives.

    o Additionally, participants felt the program prompted them to question more and to use research rather than accept things at "face value."

- Statistical test

    o Crosstabulations

        ■ There were approximately 39% of males and 38% of females that showed evidence of transformative learning.

        ■ None of the respondents 29 or younger showed evidence of transformative learning. The participants between the ages of 30 and 39 showed evidence of transformative learning at 46%. Of the respondents between 40 and 49, 40% showed evidence of transformative learning. And, 42% of the participants older than 50 showed evidence of transformative learning.

        ■ Participants who were enrolled fewer than five semesters only showed a 25% incidence of transformative learning. Student enrolled between five and eight semesters showed 43% evidence

of transformative learning. And, those students who had been enrolled for nine semesters or more showed 78% incidence of transformative learning.

- o Chi-Square
  - There was no statistically significant association between gender and evidence of transformative learning
  - There was no statistically significant association between age and evidence of transformative learning
  - There was a statistically significant association between the number of semesters a participant had been enrolled in the program and evidence of transformative learning.

Limitations of the Study

This study was conducted with a convenience sample of participants. The fact that a specific group of students was targeted could have influenced the results. In addition, the survey was conducted online, and there was no incentive offered for participation. This resulted in a response rate of a little more than 20%. This limited sample, while acceptable, also limited the data that could be collected and analyzed.

Additionally, this research chose to examine only specific demographic data, so the researcher is unable to make determinations related to other factors which might have shown an association with evidence of transformative learning.

Finally, this research did not take into consideration any curricular differences in the way the courses were taught or in the differences in the medium used. Individual teaching styles or differences in delivery of curriculum were not examined in this study.

Conclusions

This study shows that some of the students in the online Master's of Liberal Studies program at The University of Oklahoma show evidence of transformative learning. Approximately 39% of the participants showed evidence of transformative learning, which is consistent with other studies in traditional classroom settings, it can be concluded that this online program is working to transform the learner. Further, there is evidence that students are using critical reflection and are reexamining their understanding of the world through this program. These are critical components of Mezirow's transformative learning theory (King, 1998; Mezirow, 1997). The findings were divided into four sections; demographics, descriptive statistics, open ended responses, and statistical test. Each of these will be discussed in this section.

Demographics. There were few surprises in the demographic section. It can be concluded that the participants in this study reflect the general population of students in the Master's of Liberal Studies program at the University of Oklahoma. The average participant is this study was a female between the age of 30 and 39 who had been enrolled in four or fewer semesters.

Descriptive Statistics. There were some interesting patterns in the descriptive statistics related to the Likert type scale questions about transformative learning. First, while the participants seemed reluctant to admit to a change in beliefs or values in themselves, they seemed willing to state that others had questioned theirs. This finding is consistent with the literature and points to the fact that while participants may not be able to find a specific change, that change did in fact take place (Moore, 2005). Next, when looking at the surveys, participants that did not believe a specific change had taken place

still felt that the online program was transformative. In fact when examining the last several Likert type scale questions in the survey, the descriptive statistics clearly show means that indicate participant have reexamined the world, are more open to others, and use critical reflection as a result of this online program. It is evident that although only a more than a third of the participants showed evidence of transformative learning, it can be concluded by looking at the descriptive statistics on each individual question that specific tenets of transformative learning can be seen in many of the participants in this online program.

Open ended Responses. The open response questions reinforced the quantitative findings in this study. While the quantitative statistics show that transformative learning is in fact taking place in this program, the responses to the open ended questions reveal more about how the participants perceived the transformation. These questions lead to qualitative data which point to specific tenets of transformative learning. The open ended questions allow one to conclude that the participants who showed transformations in their learning could also enunciate what those changes looked like in their specific educational experiences.

Additionally, the themes that were developed in the open response questions allow conclusions about how this program has allowed the learners to explore other cultures and opinions. An examination of the responses leads to the conclusion that the "liberal" material presented, the open discussions, and the interaction with others of varying views have helped to promote transformative learning in this online program.

Statistical Test. Several conclusions come from the crosstabulation and chi-square test. First, the lack of association between gender and evidence of transformative learning

leads to the conclusion that whether a participant is male or female, they are equally likely to exhibit transformative learning.

Next, when examining the age of participant there were patterns. Participants between the ages of 30 and 39 were much likely to show evidence of transformative learning. Additionally, participants 29 and younger showed very little evidence of transformative learning. While the association was not statistically significant, empirical data would point to age playing a role in the openness of the participant and therefore in the evidence of transformative learning that those participants exhibit.

Finally, there was a statistically significant association between the number of semesters a student had been enrolled in the program and the evidence of transformative learning. Students who had been enrolled in the program longer showed increased evidence of transformative learning. The longer a participant is enrolled in the program, the more likely they are to be exposed to differing opinions, views, and beliefs. Participants allude to the "liberal" material they were presented as causing them to reexamine their values and beliefs. The significant association between the time in the program and transformative learning would appear to reinforce this finding.

Recommendations for Further Study

The opportunities for further research in this area are plentiful. First, further research could expand upon the results of this study. Additional qualitative data through interviews would be helpful in discovering more about the students learning experience and the transformations that were evident in this study. In addition, other demographic factors such as socio-economic status, type of undergraduate degree, profession or

current job could be examined to determine an association with evidence of transformative learning.

Other populations of online learners could also benefit from this type of research. It would be interesting to conduct this research with students in an undergraduate online program to determine if there are any differences in the results. In addition, specific programs could be examined for evidence of transformative learning and then compared to comparable programs in other institutions.

Finally, additional studies which focus on which specific discussions, learning activities, books, and materials presented resulted in greater evidence of transformative learning would be beneficial to institutions in the development of online programs. Educators should be interested in learning approaches that foster student learning. This type of research could help to develop some of those approaches.

Research provides an avenue for determining practices that foster and encourage student learning. As Moore (2005) states, "The possibility to recreate and rethink higher education is exciting, dangerous, and ripe with possibilities" (p 89). It is important that educators embrace this "exciting, dangerous" challenge and continue to move forward to increase student learning rather than simply encouraging memorization through content transfer.

Discussion

More than a third of the students enrolled in the online Master's of Liberal Studies program at the University of Oklahoma show evidence of transformative learning. This result is consistent with other studies conducted with students in a traditional class setting (Glisczinski, 2005; King, 1997; King & Wright, 2003). This study

reinforced the belief that students in online programs can be presented material which would lead to a transformation in their learning. This study was not looking at causation, so further study would be needed to determine what materials, discussions, or interactions might have lead to the transformation.

Transformative learning theory, however, provided an interesting lens with which to examine online programs. Many other studies were looking only at outcomes, this study delved deeper to examine student learning. Mezirow's transformative learning theory proved useful in examining learning in this online program by providing clear tenets which were easy to use to look for transformations in students learning. It is important that educators examine research that not only conclude online students perform the same as traditional students in outcome areas, but also research that focus on discussions of how students are learning in this type of environment. Educators have a responsibility to provide true learning opportunities for there students. Transformative learning has provided a lens through which one can look to discover if true learning is occurring.

The findings from the study support the usefulness of online programs in enhancing student learning. As with traditional courses, some of the students seemed to exhibit greater transformative learning. While most educators would agree that the goal is for a majority of students to exhibit transformative learning, many would also point out that transformations are not as easy to see in practice as they are in theory. By examining transformative learning over the course of an entire program rather than one specific course, a more complete picture of online learning is possible.

Therefore, the views of proponents of online learning environments were reinforced with this study. Students in online environments are learning and there is evidence that their learning has been transformative not merely a transfer of content from instructor to student. While further study is needed to determine causation for the transformative learning, this study provides a first step in discovering that transformative learning is happening in the online courses. The findings in this study are consistent with other studies from traditional learning environment and therefore show that the learning for students in online programs can be transformative.

While this study was able to discover evidence of transformative learning, it might have been more effective if a larger portion of the targeted population had responded. The online survey allowed for a convenient way of sampling students, the lack of incentive for response however limited the data that could be collected. Further study with similar populations of online learners should prove interesting. In future studies, it might be helpful to send hard copies of the surveys as well as the online version. In addition, questions which allow participants to list the materials, discussions, or assignments which they feel lead to the transformation in their learning would be fascinating to investigate and might lead to a greater understanding of the value of certain practices in online programs.

In conclusion, this study was a first step in determining that online programs can provide an environment for transformative learning to occur. Proponents of online education should feel justified that this type of environment is leading to student learning. Critics of online learning may still question some programs, but should be curious to see further research in this area which point to programs where learning is occurring.

Colleges and universities should analyze there online programs in order to determine if students are being provided the opportunity for transformations in their learning. It is clear that students can benefit from well designed online programs which enhance their learning and challenge them to reexamine their beliefs, values, and opinions.

References

Allen, E. & Seaman, J. (2005). *Growing by degrees*. Needham, MA: Sloan Consortium.

Alon, I. (2003). Experiential learning in international business via the world wide web. *Journal of Teaching in International Business, 14*(2-1), 79-98.

Berg, G. (2002). *Why distance learning? Higher education administration practices*. Westport, CT: Praeger Publishers.

Bernardo, V., Ramos, M., Plapler, H., Fransisco, L, de Figueiredo, P., Nader, H., et al. (2004). Web-based learning in undergraduate medical education: development and assessment of an online course on experimental surgery. *International Journal of Medical Informatics*, *73*, 731-742.

Bielawski, L. & Metcalf, D. (2003). *Blended elearning: integrating knowledge, performance support, and online learning.* Amherst, MA: HRD Press Inc.

Borg, W.R. & Gall, M.D. (1989). *Educational research: An introduction (5th edition).* New York: Longman.

Bourne, J.R., McMaster, E., Rieger, J. & Campbell, J.O. (1997). Paradigms for on-line learning. *Journal of Asynchronous Learning Networks, 1*(2). Retrieved January 25, 2007, from http://www.aln.org/publications/jaln/v1n2/v1n2_bourne.asp

Boyd R.D. & Myers, J.G. (1988). Transformative education. *International Journal of Lifelong Education, 7*, 261-284

Carnevale, D. (2005, February 4). Offering entire degrees online is one key to distance education, survey finds. *The Chronicle of Higher Education, 51*(22), p. A31.

Clarke, I., Flaherty, T. & Mottner, S. (2001). Student perceptions of educational technology tools. *Journal of Marketing Education, 23*(3), 169-177.

Cole, N. (1990). Conceptions of educational achievement. *Educational Researcher,*
19(3), 2-7.

Cranton, P. (2000). Individual differences and transformative learning. In Mezirow, J. et.
al. *Learning as Transformational Rethinking adult learning an development.* San
Francisco: Jossey-Bass.

Detweiler, R. (2004). At last, we can replace lectures. *The Chronicle of Higher*
Education, *50*(44), p. B8.

Dickens, D. (2004). *Bridging the internet divide for the future of education.*
Unpublished manuscript. Stillwater, OK: Oklahoma State University.

Dirkx, J.M. (2000). Transformative learning and the journey of individuation. *ERIC*
Clearinghouse on Adult, Career, and Vocational Education (Information series
no. 223) Columbus, OH.

Dominguez, P.S. & Ridley, D. (1999). Reassessing the assessment of distance education
courses. *T.H.E. Journal*, *27*(2). Retrieved January 25, 2007, from
http://www.thejournal.com/articles/14279

Dove, S.C. (2006). Critical elements and barriers to learning online: As identified in
transition graduate coursework. *Digital Dissertation.* (UMI No. 3216332)

Dutton J., Dutton, M. & Perry (2001). Do online students perform as well as lecture
students? Retrieved January 25, 2007, from
http://www4.ncsu.edu/unity/users/d/dutton/public/research/online.pdf

Examining the impact of distance education MPH program: A one-year follow-up survey
of graduates (2004). *Journal of Public Health Management & Practice, 10*, 558-
583.

Fleener, M. (2002). *Curriculum dynamics: Recreating heart.* New York: Peter Lang

    Publishing.

Foster, L. (2001). Technology: transforming the landscape of higher education. *The*

    Review of Higher Education, 25(1), 115-124.

Gagne, M. & Shepherd, M. (2001). A comparison between a distance and a traditional

    graduate accounting class. *T.H.E. Journal, 28*(9). Retrieved January 25, 2007,

    from http://www.thejournal.com/magazine/vault/A3433.cfm

Givens, R. (2007). Mending walls: Recognizing the influence of boundary issues in the

    teacher/student relationship. *Christian Scholar's Review, 36*(2), 127-140.

Glisczinski, D. (2005). Transformative teacher education: A meaningful degree of

    understanding. *Digital Dissertation.* (UMI No. 3188558)

Haber, J. (2005). Perceptions of barriers concerning effective online teaching and

    policies: Florida community college full-time faculty members. *Digital*

    Dissertation. (UMI No. 3183605)

Herrington, & Oliver (2000). An instructional design framework for authentic learning

    environments. *Educational Technology, Research and Development, 48*(3), 23-49.

Hiltz, S. & Turoff, M. (2005). Education goes digital: the evolution of online learning

    and the revolution in higher education. *Communications of the ACM, 48*(10), 59-

    64.

Imamoglu, S. (2007). An empirical analysis concerning the user acceptance of e-learning.

    Journal of American Academy of Business, Cambridge, 11(1), 132-128

Imel, S. (1998). Transformative learning in adulthood. *Eric Clearinghouse on Adult*

    Career and Vocational Education. (ED423426)

Keegan, D. (1996). *Foundations of distance education.* Routledge: London.

Kennedy, K., Nowak, S., Raghuraman, R., Thomas, J. & Davis, S.F. (2000). Academic

dishonesty and distance learning: student and faculty views. *College Student*

Journal, 34(2), 309-314.

Kiernan, V. (2003, August 8). A survey documents growth in distance education in late

1990s. *The Chronicle of Higher Education*, *49*(48), p. A28.

King, K.P. (1997). Examining activities that promote perspective transformation among

adult learners in higher education. *Digital Dissertation.* (UMI No. 9724424)

King, K.P. (1998). *A guide to perspectives transformation and learning activities: the*

learning activities survey. Research for Better Schools, Inc. Philadelphia, PA.

King, K.P. & Wright, L. (2003). New perspectives on gains in the ABE classroom:

Transformational learning results considered. *Adult Basic Education, 13*(2), 100-

123.

Krentler, K. & Williams, L. (2001). Electronic message boards to enhance student

participation and learning. In S. Van Auken & R.P. Schlee (Eds). Marketing

Educators Association Conference Proceedings (pp. 51-56). Waikoloa, HI.

Krentler, K. & Willis-Flurry, L. (2005). Does technology enhance actual student

learning? A case of online discussion boards. *Journal of Education for Business,*

80(6). 316-321.

Kulich, J.A. (1994). Meta-analytic studies of findings on computer-based instruction. In

E.I. Baker & H.E. O'Neal Jr. (Eds) Technology assessment in education and

training. Hillsdale, NJ: Erlbaum.

Lenoard, J. & Guha, S. (2001). Education at the crossroads: Online teaching and

    students' perspectives on distance learning. *Journal in Research on Technology in*

    Education, 34(1), 51-57.

McClure, J. (2006). Hybrid instruction in higher education: Students characteristics,

    motivations, expectations, and experiences. *Digital Dissertations.* (UMI No.

    3212977)

Mehrota, C.M., Hollister, C.D., & McGahey, R. (2001). *Distance learning: Principles for*

    effective design, delivery, and evaluation. Thousand Oaks: Sage Publications.

Merriam, S.B., & Yang, B. (1996). A longitudinal study of adult life experiences and

    developmental outcomes. *Adult Education Quarterly, 46*(2), 62-81.

Meyer, K. (2002). *Quality in distance education: Focus on on-line learning*. ASHE-Eric

    Higher Education Report. San Francisco, CA: Jossey-Bass.

Mezirow, J. (1989). Transformation theory and social action: A response to Collard and

    Law. *Adult Education Quarterly, 39*, 169-175.

Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco: Jossey-

    Bass.

Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for*

    Adult and continuing Education, 74, 5-12.

Mezirow, J. (2000). *Learning as transformation: Critical perspectives on a theory in*

    progress. San Francisco: Jossey-Bass.

Moore, J. (2005). Is higher education ready for transformative learning? A question

    explored in the study of sustainability. *Journal of Transformative Education,*

    31(1), 76-91.

Moore, W. S. (1994) Student and faculty epistemology in the college classroom: The

    Perry schema of intellectual and ethical development. In K. Prichard & Q. Sawyer

    (Eds.) *Handbook of college teaching: Theory and application.* Westport, CT:

    Greenwood Press.

Morningstar, M.E. & Clark, G.M. (2003). The status of personnel preparation for

    transition education and services: what is the critical content? How can it be

    offered? *Career Development for Exceptional Individuals, 26* (2), 227-237.

National Center for Educational Statistics (2003). Postsecondary Education Quick

    Information System. Retrieved November 23rd, 2006, from

    http://nces.ed.gov/surveys/peqis/publications/2003017/

Nagata, A.L. (2006). Transformation learning in intercultural education. *Rikkyo*

    Intercultural Communication Review, 4, 39-60.

Nitkin, K. (2005). Log in and learn. *NEA Today,* Retrieved October, 20th, 2006, from

    https://www.nea.org/neatoday/0505/onlineed.html

Novak, R. (2002). Benchmarking distance education. *New Direction for Higher*

    Education, 118, 79-92.

O'Banion, T. (1997). *A learning college for the 21ˢᵗ century.* Phoenix: Oryx.

Patten, V. & Holt, C. (2002). Using distance education to teach educational leadership.

    Fayetteville, Arkansas: University of Arkansas.

Patton, Michael Q. (2002). Qualitative Research & Evaluation Methods (3rd ed., pp.

    462-481). Thousand Oaks, CA: Sage.

Pierre, J.E. (2004). Toward a better understanding of adult learning: A critical analysis of
adult self-directed learning and transformative learning. *Digital Dissertation.*
(UMI No. 3165022)

Potashaik, M. & Cooper, J. (1998). Distance education: growth and diversity. *Finance
and Development, 35*, 42-45.

Russell, T.L. (1999). *The no significant difference phenomenon.* Raleigh: North Carolina
State University.

Russell, T.L. (2001). *The no significant difference phenomenon: A comparative research
annotated bibliography on technology for distance education.* Montgomery, AL:
International Distance Education Certification Center.

Schifter, C.C. (2000). Factors influencing faculty participation in distance education: A
factor analysis. *ED at a Distance, 13*(1). Retrieved January 25th, 2007, from
http://www.usdla.org/html/journal/JAN00_Issue/Factors.htm

Schultz, C. (2006). Online surveys for arts organizations: Myths and realities. *CA
publications*, Washington D.C. Retrieved March 7th, 2007, from
http://www.cultural-alliance.org/pubs/onlinesurveys.htm

Sener, J. & Stover, M.S. (2000). Integrating ALN into an independent study distance
education program: NVCC case studies. *Journal of Asynchronous Learning
Networks, 4*(2). Retrieved January 25, 2007, from
http://www.aln.org/conference/proceedings/1999Summer/papers/99summer_stov
er.pdf

Serban, A.M. (2000). Evaluation of fall 1999 online course. *ED at a Distance, 14*(10).

   Retrieved January 25, 2007, from

   http://www.usdla.org/html/journal/OCT00_Issue/story04.htm

Shaeffer, J. M., & Farr, C. W. (1993). Evaluation: a key piece in the distance education

   puzzle. *Technological Horizons in Education, 20*(9), 79.

Shih, W. & Allen, M. (2007). Working with generation D: adopting and adapting to

cultural learning and change. *Library Management, 28*(1), 89-100.

Shovein, J; Huston, C; Fox, S. & Damazo, B. (2005). Challenging traditional teaching

   and learning paradigms: online learning and emancipatory teaching. *Nursing

   Education Perspectives, 26*(6), 340-343.

Sikara, A. (2001). *A profile of participation in distance education: 1999-2000.* Report for

   the National Center for Educational Statistics: Washington, D.C. Retrieved

   December 18th, 2006, from http://nces.ed.gov/das/epubs/2003154/index.asp

Sivin-Kachala, J. (1998). *Report of the effectiveness of technology in schools, 1990-1997.*

   Washington, DC: Software Publisher's Association.

Sonner (1999). Success in the capstone business course-assessing the effectiveness of

   distance learning. *Journal of Education for Business, 74*(4), 243-248.

Smith, S.P., Smith, S.J. & Boone, R. (2000). Increasing access to teacher preparation.

   The effectiveness of traditional instructional methods in an online environment.

   Journal of Special Education Technology, 15(2), 32-46.

Taylor, E. (1998). The theory and practice of transformative learning: A critical review.

   Eric Clearinghouse. (RR93002001)

United States Bureau of Census (2002) AmericanFactFinder. Retrieved March 8, 2007,

from http://factfinder.census.gov/home/en/epss/tm_classes_methods.html

Wegner, S.B., Holloway, K.C., & Garton, E.M. (1999). The effects of Internet-based

indicator of quality of online discussion in virtual learning communities. *The*

instruction on student learning. *Journal of Asynchronous Learning Networks,*

3(2). Retrieved January 25, 2007, from

http://www.aln.org/alnweb/journal/Vol3_issue2/Wegner.htm

Wickersham, L & Dooley, K. (2006). A content analysis of critical thinking as an

indicator of quality of online discussion in virtual learning communities. *The*

Quarterly Review of Distance Education, 7(2), 185-193.

Wise, A., Chang, J., Duffy, T. & Del Valle, R. (2004). The effects of teacher social

presence on student satisfaction, engagement, and learning. *Journal of*

Educational Computing Research, 31(3), 247-271.

Zemsky, R. & Massy, W.F. (2004). *Thwarted innovation: what happened to e-learning*

and why. Report for the Weatherstation Project of the Learning Alliance at the

University of Pennsylvania: West Chester, PA. Retrieved December 18th, 2006,

from http://www.irhe.upenn.edu/Docs/Jun2004/ThwartedInnovations.pdf

Appendix A

Dr. King's Original Survey (1997)

APPENDIX B
SURVEY OF LEARNING EXPERIENCES

This survey is part of a research project about the experiences of adult learners. We believe that important things happen when adults learn new things. Only with your help can we learn more about this. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being part of this project; your cooperation is greatly appreciated.

1. Thinking about your educational experiences at this institution, check off any statements that may apply.
   - ☐ a. I had an experience that caused me to question the way I normally act.
   - ☐ b. I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)
   - ☐ c. As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.
   - ☐ d. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.
   - ☐ e. I realized that other people also questioned their beliefs.
   - ☐ f. I thought about acting in a different way from my usual beliefs and roles.
   - ☐ g. I felt uncomfortable with traditional social expectations.
   - ☐ h. I tried out new roles so that I would become more comfortable or confident in them.
   - ☐ i. I tried to figure out a way to adopt these new ways of acting.
   - ☐ j. I began to think about the reactions and feedback from my new behavior.
   - ☐ k. I do not identify with any of the statements above.

2. Since you have been taking courses at this institution, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed? Yes____ *If "Yes," please go to question #3 and continue the survey.*
   No ____ *If "No," please go to question #6 to continue the survey.*

3. Briefly describe what happened.

7. Which of the following have been part of your experience at this institution?
(Please check all that apply.)
☐ Another student's support ☐ A challenge from your teacher
☐ Your classmates' support ☐ Your teacher's support
☐ Your advisor's support ☐ Other: _____

☐ Class/group projects ☐ Verbally discussing your concerns
☐ Writing about your concerns ☐ Term papers/essays
☐ Personal journal ☐ Self-evaluation in a course
☐ Nontraditional structure of a course ☐ Class activity/exercise
☐ Internship or Co-op ☐ Lab experiences
☐ Deep, concentrated thought ☐ Personal reflection
☐ Personal Learning Assessment (PLA) ☐ Assigned readings
☐ Other: _____

Which of the following occurred while you have been taking courses at this institution?
☐ Marriage ☐ Change of job
☐ Birth/adoption of a child ☐ Loss of job
☐ Moving ☐ Retirement
☐ Divorce/Separation ☐ Other: _____
☐ Death of a loved one

8. Sex: ☐ Male ☐ Female

9. Marital Status: ☐ Single ☐ Married ☐ Divorced/separated ☐ Widowed

10. Race: ☐ White, non-Hispanic ☐ Black, non-Hispanic ☐ Other : _____
☐ Hispanic ☐ Asian or Pacific Islander

11. Current major: ☐ Allied Health ☐ Nursing
☐ Business ☐ Science/Engineering
☐ Computer Science ☐ Social Sciences (Education,
☐ English Psychology, Sociology)
☐ General Arts/ Liberal Studies ☐ Other: _____

12. Prior education: ☐ High school diploma/GED ☐ Masters degree
☐ Associates degree ☐ Doctorate
☐ Bachelors degree ☐ Other: _____

13. How many semesters have you been enrolled at this institution? _____

14. Age: ☐ Below 21 ☐ 21-24 ☐ 25-29 ☐ 30-39
☐ 40-49 ☐ 50-59 ☐ 60-69 ☐ Over 70

Thank you for completing this questionnaire!

Page 3 of 3

Dr. King's Survey (1998)

Appendix A
LEARNING ACTIVITIES SURVEY

This survey helps us learn about the experiences of adult learners. We believe that important things happen when adults learn new things. Only with your help can we learn more about this. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being part of this project; your cooperation is greatly appreciated.

1. Thinking about your educational experiences at this institution, check off any statements that may apply.

   ☐ a. I had an experience that caused me to question the way I normally act.

   ☐ b. I had an experience that caused me to question my ideas about social roles.
   (Examples of social roles include what a mother or father should do or how an adult child should act.)

   ☐ c. As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.

   ☐ d. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.

   ☐ e. I realized that other people also questioned their beliefs.

   ☐ f. I thought about acting in a different way from my usual beliefs and roles.

   ☐ g. I felt uncomfortable with traditional social expectations.

   ☐ h. I tried out new roles so that I would become more comfortable or confident in them.

   ☐ i. I tried to figure out a way to adopt these new ways of acting.

   ☐ j. I gathered the information I needed to adopt these new ways of acting.

   ☐ k. I began to think about the reactions and feedback from my new behavior.

   ☐ l. I took action and adopted these new ways of acting.

   ☐ m. I do not identify with any of the statements above.

2. Since you have been taking courses at this institution, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed? Yes___ *If "Yes," please go to question #3 and continue the survey.*
   No ___ *If "No," please go to question #6 to continue the survey.*

3. Briefly describe what happened.

33

83

4. Which of the following influenced this change? (Check all that apply)

Was it a person who influenced the change? Yes _____ No _____
If "Yes," was it... (check all that apply)

☐ Another student's support   ☐ A challenge from your teacher
☐ Your classmates' support   ☐ Your teacher's support
☐ Your advisor's support   ☐ Other: _____

Was it part of a class assignment that influenced the change? Yes _____ No _____
If "Yes," what was it? (check all that apply)

☐ Class/group projects   ☐ Verbally discussing your concerns
☐ Writing about your concerns   ☐ Term papers/essays
☐ Personal journal   ☐ Self-evaluation in a course
☐ Nontraditional structure of a course ☐ Class activity/exercise
☐ Internship or co-op   ☐ Lab experiences
☐ Deep, concentrated thought   ☐ Personal reflection
☐ Personal learning assessment (PLA) ☐ Assigned readings
                                     ☐ Other: _____

Was it a significant change in your life that influenced the change? Yes _____ No _____
If "Yes," what was it? (check all that apply)

☐ Marriage   ☐ Change of job
☐ Birth/adoption of a child   ☐ Loss of job
☐ Moving   ☐ Retirement
☐ Divorce/separation   ☐ Other: _____
☐ Death of a loved one

5. Thinking back to when you first realized that your views or perspective had changed, what did your being in school have to do with the experience of change?

6. Would you characterize yourself as one who usually thinks back over previous decisions or past behavior?   Yes ___   No ___

Would you say that you frequently reflect upon the meaning of your studies for yourself, personally? Yes ___   No ___

7. Which of the following have been part of your experience at this institution?
   (Please check all that apply.)
   ☐ Another student's support   ☐ A challenge from your teacher
   ☐ Your classmates' support   ☐ Your teacher's support
   ☐ Your advisor's support   ☐ Other: _____
   ☐ Class/group projects   ☐ Verbally discussing your concerns
   ☐ Writing about your concerns   ☐ Term papers/essays
   ☐ Personal journal   ☐ Self-evaluation in a course
   ☐ Nontraditional structure of a course ☐ Class activity/exercise
   ☐ Internship or co-op   ☐ Lab experiences
   ☐ Deep, concentrated thought   ☐ Personal reflection
   ☐ Personal learning assessment (PLA) ☐ Assigned readings
                                     ☐ Other: _____

   Which of the following occurred while you have been taking courses at this institution?
   ☐ Marriage   ☐ Change of job
   ☐ Birth/adoption of a child   ☐ Loss of job
   ☐ Moving   ☐ Retirement
   ☐ Divorce/separation   ☐ Other: _____
   ☐ Death of a loved one

8. Sex: ☐ Male   ☐ Female

9. Marital Status: ☐ Single   ☐ Married   ☐ Divorced/separated   ☐ Widowed

10. Race: ☐ White, non-Hispanic   ☐ Black, non-Hispanic   ☐ Other :_____
                   ☐ Hispanic   ☐ Asian or Pacific Islander

11. Current major: ☐ Allied Health   ☐ Nursing
                    ☐ Business   ☐ Science/Engineering
                    ☐ Computer Science   ☐ Social Sciences (Education,
                    ☐ English   ☐ Psychology, Sociology)
                    ☐ General Arts/ Liberal Studies   ☐ Other: _____

12. Prior education: ☐ High school diploma/GED   ☐ Masters degree
                     ☐ Associates degree   ☐ Doctorate
                     ☐ Bachelors degree   ☐ Other: _____

13. How many semesters have you been enrolled at this institution? _____

14. Age: ☐ Below 21   ☐ 21-24   ☐ 25-29   ☐ 30-39
                   ☐ 40-49   ☐ 50-59   ☐ 60-69   ☐ Over 70

Thank you for completing this questionnaire!

Appendix B

Letter to Dr. King

Dr. King,

My name is Janet Wansick and I am a doctoral student at Oklahoma State University. I am working on my proposal for my dissertation and am interested in investigating transformational learning in master's level students taking their courses on-line. While working on the literature review, I have viewed several things you have written including your doctoral dissertation, "Examining Activities that Promote Prespective Transformation among Adult Learning in Higher Education." I am interested in using your survey instrument in my dissertation and would like permission to use the instrument you developed. If you have any questions, I would be glad to visit with you further about my intent. I can be reached via email at jwansick@yahoo.com or by phone at (918) 916-0579.

Thank you for your consideration in this matter,

Janet Wansick

Sent 9:23 pm Thursday, November 16th, 2006 to kpking@fordham.edu

Response Letters from Dr. King

Subject:	Response: Permission to use survey
From:	KPKING@FORDHAM.EDU Add to Address Book Add Mobile Alert
To:	"Janet Wansick" <jwansick@yahoo.com>
Date:	Fri, 17 Nov 2006 08:52:00 -0500

HI JANet,
Good to hear from you. In order to use the survey you should purchase the inexpenian manual and updated companion CD at
http://www.bxmedia.net/agtptlam-full.htm

This provides you with instructions on how to do so. Once you have those in hand we can discuss your project and I will be able to send you any formal permission that you need for your master's research.

In addition you would also find this book very important for your work if you have not already read it- because it brings together the results of my research using this instrument in many different settings.

http://www.bxmedia.net/1575242532-full.htm

Best,
KPK

Kathleen P. King, EdD
Professor of Education
Director, Fordham RETC
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Tel: 973-930-7187
Office: 718-817-3503   Fax: 718-295-4262
Email: Kpking@fordham.edu   Website: www.retc.fordham.edu

Subject:	Re: Survey instrument- feedback 12/3/06 to J Wansick
From:	KPKING@FORDHAM.EDU
To:	"Janet Wansick" <jwansick@yahoo.com>
CC:	kpking@fordham.edu
Date:	Sun, 3 Dec 2006 14:05:42 -0500

HI Janet
this is much better- but if you want them to focus on
"problems encountered in my personal and professional activities"

why don't you just say that in the earlier questions?

the decision you and your committee have to make is

are you looking for ANY perspective transformation or are you looking for perspective transformation specifically related to "solving problems encountered in my personal and professional activities"

that is what I am trying to get you to more clearly identify in the adapted survey so that it will truly be useful to your purposes

Also note that in my studies I spend a great deal of time in the surveys asking what learning activities are effective in contributing to the perspective transformation and I ask them in a controlled format...

I see you have eliminated those questions entirely....

this will mean you only have limited data--- not too much information about the instructional process or instructional design

as far as my role- with this advice you and your advisor should take it from here
your advisor should be able to guide you on how your research questions should articulate with your instrument...

as the originally designer of the instrument.. these are my recommendations based on revisions over the years.

Let me know how things work out.
Best,
KPK

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Appendix C

Survey of Learning Experiences

This survey is part of a research project about the learning experiences of Masters Students in online courses. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being a part of this project; your cooperation is greatly appreciated.

1. Since you have been taking on-line courses at this institution, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed?
    Yes ____   No_____

2. Briefly describe what happened.
    _____
    _____
    _____

3. Would you characterize yourself as one who usually thinks back over previous decisions or past behaviors? Yes ____   No ____

Thinking about your educational experiences in this on-line program, use the key below to indicate the extent of your agreement or disagreement with each statement.
    SD: Strongly Disagree
    D: Disagree
    NO: No opinion
    A: Agree
    SA: Strongly Agree

4. I had an experience that caused me to question the way I normally act.
       (1) SD   (2) D   (3) NO   (4) A   (5) SA

5. I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)
       (1) SD   (2) D   (3) NO   (4) A   (5) SA

6. As I questioned my ideas related to the material I am learning in my liberal studies program, I realized I no longer agreed with my beliefs or role expectations.
   (1) SD   (2) D   (3) NO   (4) A   (5) SA

7. As I questioned my ideas related to the material I am learning in my liberal studies program, I realized I still agreed with my beliefs or role expectations.
   (1) SD   (2) D   (3) NO   (4) A   (5) SA

8. I realized that other people also questioned their beliefs related to the material they are learning in the liberal studies program.
   (1) SD   (2) D   (3) NO   (4) A   (5) SA

9. I thought about acting in a different way form my usual beliefs and roles.
   (1) SD   (2) D   (3) NO   (4) A   (5) SA

10. I felt uncomfortable with traditional social expectations.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

11. I tried out new roles so that I would become more comfortable or confident in them.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

12. I tried to figure out a way to adopt these new ways of acting.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

13. I began to think about the reactions and feedback from my new behaviors.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

14. My learning activities help me to use critical reflection to solve problems encountered in my personal and professional activities.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

15. The learning process prompted me to reexamine my understanding of the world.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

16. There has been no change in my way of thinking since I have been in this on-line program.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

17. The learning process in my on-line program is transformative.
    (1) SD   (2) D   (3) NO   (4) A   (5) SA

Now, please answer a few additional questions related to your learning experiences in your on-line program.

18. In what ways have your learning activities in this on-line program help you to use critical reflection to solve problems.

_____
_____
_____

19. Thinking back to when you first realized that your views or perspectives had changed, what did your being in this on-line program have to do with the experience of change?

_____
_____
_____

20. In what ways have the learning process in this on-line program prompted you to reexamine your understanding of the world?

_____
_____
_____

21. Gender: ____ Male   ____ Female

22. How many semesters have you been enrolled in on-line courses at this institution?
    _____

23. Age: ____ below 21   ____ 21 – 24   ____ 25 – 29   ____ 30 – 39
            ____ 40 – 49   ____ 50 – 59   ____ 60 – 69   ____ Over 70

Thank you for completing this questionnaire! I appreciate your feedback

This survey was adapted with permission from Dr. Kathleen King.

Appendix D

IRB Approval

Oklahoma State University Institutional Review Board

Date: Friday, January 05, 2007

IRB Application No   ED06216

Proposal Title: Transformative Learning in Online Courses

Reviewed and   Exempt
Processed as:

Status Recommended by Reviewer(s): Approved   Protocol Expires: 1/4/2008

Principal
Investigator(s

Janet Wansick   Adrienne Hyle
2321 N. A   336 Willard
McAlester, OK 74501   Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the
rights and welfare of individuals who may be asked to participate in this study will be respected, and that
the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45
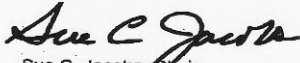CFR 46.

☒ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval
   stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

   1. Conduct this study exactly as it has been approved. Any modifications to the research protocol
      must be submitted with the appropriate signatures for IRB approval.
   2. Submit a request for continuation if the study extends beyond the approval period of one calendar
      year. This continuation must receive IRB review and approval before the research can continue.
   3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are
      unanticipated and impact the subjects during the course of this research; and
   4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the
authority to inspect research records associated with this protocol at any time. If you have questions
about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219
Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sue C. Jacobs, Chair
Institutional Review Board

E-MAILED LETTER

Dear College of Liberal Studies Student:

I am a doctoral candidate at Oklahoma State University. I am interested in obtaining student's perceptions of their learning in on-line courses. I am asking that you assist me in this task by completing the following survey. This survey is part of a research project entitled *Transformative Learning in Online Courses;* it is about the learning experiences of Masters Students in online courses. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being a part of this project; your cooperation is greatly appreciated.
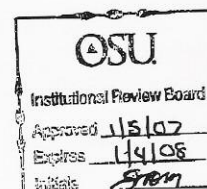
You may be assured that this information you provide on the survey will be handled in confidence. Any written results will discuss group findings and will not include information that will make it possible to identify any participant. Research records will be stored securely and only the researchers and individuals responsible for research oversight will have access to the records. Research data will be kept for one year after completion of the data analysis. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research. In addition, you may be assured that the data are not being collected in such a way that any one student will be compared with another. Participation in this study is voluntary, and there is not a penalty for non-participation. However, by participating, you will be helping to develop an understanding of your learning experiences.

It is hoped that this study will impact future practices in on-line education for adult learners, will impact theory by examining the best practices in on-line programs and student learning, will help to expand our understanding of graduate student learning experiences in on-line courses, and will provide evidence that could impact those institutions decisions on how to evaluate the courses they are offering and might encourage more course offerings. In addition, there are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

You can help me with this study by completing the survey by clicking on the link below. If you have any questions about the study, please call me at (918)916-0579 or email me at jwansick@yahoo.com or call my dissertation advisor, Adrienne Hyle, at (405)744-9893 or email her at adrienne.hyle@okstate.edu. If you have questions about the research and your rights as a research volunteer, you may contact Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu. Thank you very much for your assistance.

Sincerely yours,

Janet Wansick
Doctoral Student
Oklahoma State University

OSU
Institutional Review Board
Approved 1|5|07
Expires 1|4|08
Initials SJann

93

Participant Information: I have read this information above. I understand that by clicking the link and filling out the information I am voluntarily agreeing to participate in this study.
Clicking here http://www.surveymonkey.com/s.asp?u=716132973697 will take you to the questionnaire.

Appendix E

E-Mailed Letter

Dear College of Liberal Studies Student:

I am a doctoral candidate at Oklahoma State University. I am interested in obtaining student's perceptions of their learning in on-line courses. I am asking that you assist me in this task by completing the following survey. This survey is part of a research project entitled *Transformative Learning in Online Courses;* it is about the learning experiences of Masters Students in online courses. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being a part of this project; your cooperation is greatly appreciated.

You may be assured that this information you provide on the survey will be handled in confidence. Any written results will discuss group findings and will not include information that will make it possible to identify any participant. Research records will be stored securely and only the researchers and individuals responsible for research oversight will have access to the records. Research data will be kept for one year after completion of the data analysis. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research. In addition, you may be assured that the data are not being collected in such a way that any one student will be compared with another. Participation in this study is voluntary, and there is not a penalty for non-participation. However, by participating, you will be helping to develop an understanding of your learning experiences.

It is hoped that this study will impact future practices in on-line education for adult learners, will impact theory by examining the best practices in on-line programs and student learning, will help to expand our understanding of graduate student learning experiences in on-line courses, and will provide evidence that could impact those institutions decisions on how to evaluate the courses they are offering and might encourage more course offerings. In addition, there are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

You can help me with this study by completing the survey by clicking on the link below. If you have any questions about the study, please call me at (918)916-0579 or email me at jwansick@yahoo.com or call my dissertation advisor, Adrienne Hyle, at (405)744-9893 or email her at adrienne.hyle@okstate.edu. If you have questions about the research and your rights as a research volunteer, you may contact Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu .
Thank you very much for your assistance.
Sincerely yours,

Janet Wansick
Doctoral Student
Oklahoma State University

Participant Information: I have read this information above. I understand that by clicking the link and filling out the information I am voluntarily agreeing to participate in this study.

Clicking here http://www.surveymonkey.com/s.asp?u=716132973697 will take you to the questionnaire.

Appendix F

Follow-up E-Mailed Letter

Dear College of Liberal Studies Student:

You previously received the following email. I want to thank those of you who have taken the time to complete the survey. For those of you who have not had the opportunity to complete the survey, I would like to ask you to consider following the link http://www.surveymonkey.com/s.asp?u=716132973697 to complete the survey. I value your input.

A colleague of mine is interested in conducting interviews to further investigate student learning in on-line courses. If you would consider being interviewed, please send and email to frankr@ou.edu and provide an email address where you can be reached and give a brief description of your on-line experience.

Once again, thank you for your time and the effort it took to complete the survey.

Janet Wansick

Attachment:
     E-Mailed Letter

Dear College of Liberal Studies Student:

I am a doctoral candidate at Oklahoma State University. I am interested in obtaining student's perceptions of their learning in on-line courses. I am asking that you assist me in this task by completing the following survey. This survey is part of a research project entitled *Transformative Learning in Online Courses;* it is about the learning experiences of Masters Students in online courses. The survey only takes a short time to complete, and your responses will be anonymous and confidential. Thank you for being a part of this project; your cooperation is greatly appreciated.

You may be assured that this information you provide on the survey will be handled in confidence. Any written results will discuss group findings and will not include information that will make it possible to identify any participant. Research records will be stored securely and only the researchers and individuals responsible for research oversight will have access to the records. Research data will be kept for one year after completion of the data analysis. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research. In addition, you may be assured that the data are not being collected in such a way that any one student will be compared with another. Participation in this study is voluntary, and there is not a penalty for non-

participation. However, by participating, you will be helping to develop an understanding of your learning experiences.

It is hoped that this study will impact future practices in on-line education for adult learners, will impact theory by examining the best practices in on-line programs and student learning, will help to expand our understanding of graduate student learning experiences in on-line courses, and will provide evidence that could impact those institutions decisions on how to evaluate the courses they are offering and might encourage more course offerings. In addition, there are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

You can help me with this study by completing the survey by clicking on the link below. If you have any questions about the study, please call me at (918)916-0579 or email me at jwansick@yahoo.com or call my dissertation advisor, Adrienne Hyle, at (405)744-9893 or email her at adrienne.hyle@okstate.edu. If you have questions about the research and your rights as a research volunteer, you may contact Dr. Sue C. Jacobs, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu .
Thank you very much for your assistance.

Sincerely yours,

Janet Wansick
Doctoral Student
Oklahoma State University

Participant Information: I have read this information above. I understand that by clicking the link and filling out the information I am voluntarily agreeing to participate in this study.
Clicking here http://www.surveymonkey.com/s.asp?u=716132973697 will take you to the questionnaire.

Appendix G

Table of Descriptive Statistics for Survey Data

QUESTIONS	N Valid	N Missing	Mean	Median	Std. Deviation
Question 1: Since you have been taking on-line courses at this institution, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed?	84	1	1.45	1.00	.501
Question 3: Would you characterize yourself as one who usually thinks back over previous decisions or past behaviors?	85	0	1.95	2.00	.213
Question 4: I had an experience that caused me to question the way I normally act	76	9	2.87	3.00	1.320
Question 5: I had an experience that caused me to question my ideas about social roles. (Examples of social roles include what a mother or father should do or how an adult child should act.)	76	9	2.99	3.00	1.205
Question 6: As I questioned my ideas related to the material I am learning in my liberal studies program, I realized I no longer agreed with my beliefs or role expectations.	76	9	2.54	2.00	1.026
Question 7: As I questioned my ideas related to the material I am learning in my liberal studies program, I realized I still agreed with my beliefs or role expectations.	75	10	2.27	2.00	.977
Question 8: I realized that other people also questioned their beliefs related to the material they are learning in the liberal studies program.	75	10	3.43	4.00	.774
Question 9: I thought about acting in a different way form my usual beliefs and roles.	75	10	2.73	2.00	1.166
Question 10: I felt uncomfortable with traditional social expectations.	76	9	2.58	2.00	1.086
Question 11: I tried out new roles so that I would become more comfortable or confident in them.	76	9	3.00	3.00	1.058
Question 12: I tried to figure out a way to adopt these new ways of acting.	74	11	3.09	3.00	1.009
Question 13: I began to think about the reactions and feedback from my new behaviors.	75	10	3.15	3.00	1.036
Question 14: My learning activities help me to use critical reflection to solve problems encountered in my personal and professional activities.	75	10	4.12	4.00	.944
Question 15: The learning process prompted me to reexamine my understanding of the world.	75	10	3.76	4.00	.956
Question 16: There has been no change in my way of thinking since I have been in this on-line program.	75	10	3.53	4.00	1.349
Question 17: The learning process in my on-line program is transformative.	76	9	3.86	4.00	.875
Question 22: How many semesters have you been enrolled in on-line courses at this institution?	65	20	5.09	4.00	3.449
Question 23: Age	65	20	4.54	4.00	1.047

VITA

Janet Denise Wansick

Candidate for the Degree of

Doctor of Education

Thesis: TRANSFORMATIVE LEARNING IN ONLINE COURSES

Major Field: Higher Education

Educational Background

EdD.   May, 2007   Higher Education   Oklahoma State Univ. Stillwater, OK
M.S.   May, 1994   Secondary Education   East Central University Ada, OK
B.S.   Dec.,1991   Mathematics Education   East Central University Ada, OK

Professional Experience

 2002-Present   *Mathematics Professor*
                           Northern Oklahoma College, Tonkawa

2000-2002   *Adjunct Instructor*
                           Southeastern Oklahoma State University, Durant

2001-2002   *Adjunct Instructor*
                           Eastern Oklahoma State College, McAlester

1992-2002   *Mathematics Teacher*
                           McAlester Public Schools, McAlester

1994-1999   *Facilitator-Mathematics Workshops*
                           State Department of Education and SEDL

Professional Associations
        Rocky Mountain Educational Research Association (RMERA)
        Oklahoma Education Association (OEA)
        National Education Association (NEA)
        National Council for Teachers of Mathematics (NCTM)
        Oklahoma Council for Teachers of Mathematics (OCTM)
                -past district 17 OCTM Board of Directors
        Coalition for the Advancement of Science and Mathematics Education in
        Oklahoma (CASMEO)
                -past Southeastern Regional Coordinator

Name: Janet D. Wansick   Date of Degree: May, 2007

Institution: Oklahoma State University   Location: Stillwater, Oklahoma

Title of Study: TRANSFOMATIVE LEARNING IN ONLINE COURSES

Pages in Study: 99   Candidate for the Degree of Doctor of Education

Major Field: Higher Education

Scope and Method of Study: This exploratory research was concerned with looking for evidence of transformative learning in an online Master's program at a major research university. Mezirow's transformative learning theory was used as the theoretical perspective in the study. A survey instrument which was correlated with Mezirow's ten tenets of transformative learning was used to illicit quantitative information in order to discover evidence of transformative learning. In addition, open response questions were used to further ascertain the perspective of students about their online education.

Findings and Conclusions: This study found that approximately 39% of the participants showed evidence of transformative learning and that there was a statistically significant association between the number of semesters a participant had been enrolled in the program and the occurrence of that transformative learning.

Dr. Adrienne Hyle
_____
ADVISER'S APPROVAL: Type Adviser's Name Here