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Promoting Critical Thinking and Reflection in a Capstone Course for Adult Learners

James-Etta Goodloe
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Walden University

COLLEGE OF EDUCATION

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James-Etta Goodloe

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Walden University
2015

Abstract

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MEd, Carroll University, 2008

BA, Ottawa University, 2005

Doctoral Study Submitted in Partial Fulfillment

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June 2015

Abstract

University instructors can improve how they promote critical thinking in the classroom by fostering reflective writing habits with students. Midwest University requires all undergraduate students to complete 2 capstone courses, which are framed around a critical thinking curriculum. The skills of analyzing and reflecting on experiences are important components of critical thinking. Despite this acknowledged importance of critical thinking, there is currently no structured training for instructors of the capstone course on how to develop critical thinking abilities among adult students. The purpose of this case study was to examine the perceptions of the instructors of the capstone courses and their approaches to promoting critical thinking. Literature on critical thinking and reflective writing provided the framework for this study. Participants included 5 instructors with experience teaching one of the capstone courses. Data collection included semi-structured interviews, classroom observations, and reflective journals. Analysis was inductive using open coding and constant comparison to identify emergent themes. Findings indicated that a common practice to promote critical thinking was through probing questions and deep discussions, that a challenge to promoting a critical thinking curriculum was student engagement, and that more importance should be placed on assessing critical thinking in the grading rubrics. Results prompted the creation of a professional development workshop to offer training to instructors that included the experience of progressing through reflective activities and deep discussion to better guide their students through the same process in an effort to strengthen critical thinking development. University instructors may glean best practices from this study to guide students in developing the capacity to think from a more critical and global perspective.

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Dedication

"Every great dream begins with a dreamer. You have within you the strength, the patience, and the passion to reach for the stars, to change the world." – Harriet Tubman

To Cierra and Nicholas, dream big, have faith, and trust God to make all of your dreams come true … even the dreams you did not think you had. Forward, march!

Acknowledgments

First, I would like to give all praise and honor to God for allowing me the opportunity to complete this goal. I can do all things through Christ who strengthens me (Philippians 4:13). I would like to thank all of my family, friends, professors, and colleagues who supported, encouraged, and challenged me during this doctoral journey. A special thank you to my children, Cierra and Nicholas, for your resilience, laughter, and love; JoAnn and Vincent, thank you for your unwavering flow of faith, prayers, and encouragement to press onward and upward; my mentor, Dr. Robinson, thank you for your wisdom and guidance that go back to when I walked into your office one blustery, snowy day in Wisconsin—I appreciate your confidence in my ability to persevere to the next level; to Dr. Englesberg and Dr. Hinrichs, thank you for recognizing my skill to produce doctoral-level work and "gently" pushing me toward excellence; to Dr. Hunt, thanks for your level of expertise. I am who I am because of the generation who came before me. My story would be very different had it not been for my great-grandparents who raised me. "Mama Pauline" and "Daddy Boots" shaped my life in so many ways. Although they are both in heaven, their sweet spirit will always live in my heart. I am forever grateful to Carl "Boots" Thomas and Pauline Beach Thomas, for nurturing me and showing me the greatest example of strength, determination, wisdom, and courage, and for also instilling in me the value of getting a "good education." Finally, I would like to acknowledge and thank Craig for showing me the true beauty of friendship!

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Section 1: The Problem

Introduction

This section describes the idea of university instructors using reflective teaching methods to promote critical thinking. One important characteristic of good university instructors is the ability to reflect on their teaching techniques to consider whether there are other alternatives. By demonstrating the ability to reflect on teaching strategies, an instructor may be better able to meet the needs of adult students, which is a vital component of adult education (Knowles, Holton, & Swanson, 2005). If this important step is not taken, a gap in practice might result. This research study examined the perceptions of university instructors on promoting critical thinking among adult students and in what way reflective writing might enable instructors to gain a better understanding of themselves and their practice.

Adult educators may be tasked to challenge students to think from a more critical perspective and consider other frames of reference. Although a bit time consuming, reflective writing activities, discussions, and assignments may begin the journey of examining a situation from a different point of view. Through this study, I sought to consider the perception of university instructors and their approach to promoting critical thinking in order to understand any connection among critical thinking, reflective writing, and learner transformation, which are viewed as foundational components of adult education (Elder & Paul, 2000, 2004, 2008, 2010, 2012; 2013; Facione & Gittens, 2012; Kose & Lim, 2011; Nosich, 2005, 2012).

Midwest University (MU) offers two capstone courses in its undergraduate adult education program. Writing and Critical Thinking in the Liberal Arts (WCTLA) is the first capstone course, and Global Issues in the Liberal Arts (GILA) is the second capstone course.

Each instructor selected to teach one of the two capstone courses is required to have an earned a master's degree or a higher credential; however, there has been no formal training designed for those selected to teach these important capstone courses to examine and strengthen their approach to promoting critical thinking. Meanwhile, instructor selection is based on education, discipline, and course registration without emphasis on best practices for promoting critical thinking among students.

For example, an instructor selected to teach an online course must complete Blackboard 9.1 training. The online training is a three-phase process. In Phase 1, the instructor enrolls in an online course as if the instructor were a student. Instructors complete a series of assignments to earn points. Candidates who earn full points and receive a recommendation from the training instructor advance to Phase 2. In Phase 2, the instructor contracts an online class assignment and a mentor to guide him or her through the process of teaching online. At the completion of the 8-week term, advancement to Phase 3 happens when the candidate has successfully facilitated an online class and has received satisfactory student evaluations and mentor recommendations. In Phase 3, the candidate contracts another online course to teach without a mentor. At the completion of the course, the online manager considers all acquired information to decide whether the potential instructor has met the expectations to become a certified online instructor. If so,

then the instructor's name goes on a list of certified online adjunct instructors for future use, based on enrollment.

The campus director and dean of instruction schedule a face-to-face interview with the potential candidate and then assign him or her a class to teach, based on enrollment. The campus director and dean of instruction observe the educator facilitating the 8-week course. At the end of the term, the campus director and dean of instruction decide whether the potential educator has met the expectations to become an adjunct instructor for that particular campus. Student evaluations, observations, and course enrollment determine future adjunct contracts to teach a course. All adjuncts have knowledge of the four breadth areas of the undergraduate liberal arts program. These areas are art/expression, social/civic, science/technology, and values/meaning.

Writing & Critical Thinking in the Liberal Arts is a required course for all incoming adult undergraduate students. The class helps to increase the students' awareness of their individual place in society and the role critical thinking plays in adopting a more global perspective. Instructors contracted to teach Writing & Critical Thinking engage students in exploring and understanding different ways of knowing through activities, readings, and discussion in the four breadth areas. University instructors guide students in strengthening skills in reflective and critical thinking along with problem solving, and information literacy. One course objective states that upon successful completion of the course, students will demonstrate critical thinking in being able to examine their own values, perspectives, and attitudes, as well as those of others.

Another course objective involves students demonstrating their reflection on past learning experiences and their impact on current learning and growth.

Global Issues in the Liberal Arts is a capstone course designed for students to reflect and write about experiences within the context of the core learning areas. Instructors challenge students to view the experience from a global perspective and apply learning theory. Instructors guide students in organizing their way of thinking through a cultural lens, a social lens, and a value system lens. Instructors demonstrate the ability to facilitate and assess student learning through researching, writing, and presenting assignments that explore global issues. Both capstone courses strengthen an instructor's ability to shape students' awareness of their individual place in society and the role critical thinking plays in adopting a more global perspective.

Definition of the Problem

Each capstone class at MU is developed around a curriculum that requires students to apply critical thinking in order to relate and synthesize ideas and experiences from an alternative perspective (course syllabus, 2013). To facilitate positive learning outcomes and course objectives for the capstone courses, instructors should be skilled in supporting a diverse group of students through questioning, reflecting on, and evaluating information in the hope that students will become aware of possible mistakes made in previous experiences and consider other options (Loes et al., 2012). Although there are faculty workshop resources for planning and institutional effectiveness available via the university website, this information has not been updated since 2013 (MU website, 2015). Currently, there is no formal training specifically for those instructors who teach

the capstone courses on how to promote critical thinking among students (MU website, 2011). Providing a regularly scheduled professional development opportunity may address the core challenge of promoting critical thinking and strengthening reflective writing practices within the capstone course curriculum.

University instructors who apply reflective writing habits to their practice deepen their understanding of the process and therefore become better equipped to guide students to examine assumptions, ideas, and actions that may develop critical thinking skills (Brock, 2010; Brookfield, 1995, 1997, 2007; Huang & Kalman, 2012; Kennison, 2012). This reflective practice prompts teachers and students to apply new and experiential knowledge in everyday life as they become open to various points of view (Galbraith & Jones, 2008; Kose & Lim, 2011). Instructors who are able to model a willingness to examine multiple points of view and evaluate sources create a learning environment of personal honesty and integrity (Brookfield, 1997; Lampert, 2007; Rugutt & Chemosit, 2009).

The ability to examine personal beliefs and reflect on possible change in those beliefs is an important component of critical thinking (Blessing & Blessing, 2012; Harvey & Baumann, 2012). When university instructors begin to look for evidence to support assumptions and then pause to consider assumptions from various perspectives, they start the process of critical thinking, and thereby can model this process for their students. Critical thinking is an intentional journey toward reflecting on previous experiences and reframing experience through questions as well as insight (Bleicher, 2011; Erlandson & Beach, 2008; Gardner, 2009; Ireland, 2008). In addition, instructors

who are skilled at posing insightful questions on teaching and learning may promote reflection on practice (Ireland, 2008). In the use of reflective writing, the instructor becomes more self-confident and open minded (Kennison, 2012). The instructor can begin to build a framework for critical thinking to take place by evaluating sources from various perspectives without making hasty decisions. This reflective process works to develop the learning outcome for critical thinking and may improve pedagogy in this area for the capstone courses at MU (Aitken & Deaker, 2007; Brookfield, 1995; Finn, 2011; Jordi, 2011; Mezirow, 1990; Moss, Springer, & Dehr, 2008).

Rationale

Evidence of the Problem at the Local Level

Based on emails among instructors who teach Writing and Critical Thinking in the Liberal Arts, there has been no structured training on how to develop critical thinking abilities among adult students (P. Amborn, personal communication, January 12 & May 9, 2011). Investigating this phenomenon in this particular university provided understanding of how university instructors perceive the effects of reflective writing in promoting critical thinking skills to inform teaching and learning.

Evidence of the Problem From the Professional Literature

Instructors are often limited in their understanding of critical thinking and unable to collaborate with other educators to share ideas to improve student achievement. This lack of understanding and limited collaboration add to ineffective teaching (Facione & Gittens, 2012; Finn, 2011; Huen, 2011). In addition, Paul and Elder (2001, 2007) noted, "We cannot assume that teachers have a clear concept of critical thinking" (p. 5). They

believed that critical thinking was seldom promoted in any academic program. Information gleaned from this case study may directly affect policy, procedure, and future research (Merriam, 2009). The intent was to examine the best practices of instructors at MU to gain insight on how those who taught WCTLA and GILA promoted critical thinking. This study might contribute to the development of a course for university instructors to use to inform practice and deepen their understanding of themselves, their students, and their curriculum (Finn, 2011; Jordi, 2011; Mulnix, 2012).

Definitions

Critical thinking: An act of reasoning, analyzing, and evaluating that is steeped in questions to allow a person to become aware of the diversity of values, assumptions, beliefs, and social structures of the world to make sound judgments. This happens in a productive and positive way with the intent to improve overall thinking (Brookfield, 1997; Facione, 2010; Paul & Elder, 2000).

Reasoning: The process of thinking that becomes thoughtful with mindfulness of context, goals, purpose, and limitations (Nosich, 2012).

Reflection: The act of looking back on thinking and/or experiences to gain a better understanding with asking questions of why, how, and what (Mezirow, 1990; Nosich, 2012).

Significance

The results from this study contributed to the effectiveness of training and professional development of university instructors at MU, as well as other learning environments. This study may be useful to Midwest University because it examined the

best practices of instructors to gain insight on how those who taught WCTLA and GILA promoted critical thinking abilities through reflective assignments. One aim for this study was to provide a resource for instructors on how to journey through the process of reflective writing themselves to better guide their students through the process of learner transformation to strengthen critical thinking development.

University instructors may be unaware of how to engage students to self-reflect, ask insightful questions, and give helpful feedback. This study provides best practices in guiding students to think critically through reflective methods. With the goal of promoting positive social change, I addressed issues university instructors may face in promoting critical thinking because they have not been trained in this area or had the opportunity to journey through the process of reflective writing to deepen their understanding for themselves and their practices. Professional development might be developed to train instructors on the steps toward the use of reflective writing to promote critical thinking in teaching. In this way, instructors may expand their technique to guide students through the process of reflective writing to promote critical thinking in learning. On a broad educational level, the aim for social change might be to highlight best practices for university instructors to guide students in developing the ability to think from a more global and critical perspective. In the meantime, the actions used to encourage critical thinking may not be restricted to educational settings.

Guiding/Research Question

In order to conduct this study, I examined the perceptions of instructors who taught a capstone course at Midwest University to understand how they described the effects of

their teaching methods to promote critical thinking skills among adult students. The questions below were the basis of this study:

How do university instructors approach critical thinking goals in two undergraduate capstone courses?

    a. What teaching methods do university instructors describe as effectively promoting a critical thinking curriculum?

    b. How are classroom assessment strategies used to measure critical thinking?

Review of the Literature

Information for this chapter came from a variety of educational databases. The databases included ERIC, EBSCO Host, ProQuest Central, Academic Search Premier, and SAGE. In addition, I conducted a thorough search involving Review of Education Research, Review of Research in Education, Educational Research Reviews, and other general search engines such as Google Scholar. Meanwhile, I conducted library searches and reviewed recent dissertations, using key words and phrases that matched the intent of this study. The terms *reflective writing, reflective journals, critical thinking in higher education, critical thinking pedagogy, critical thinking teaching methods, pedagogy to promote reflection,* and *assessing critical thinking* attached to the terms *critical thinking techniques* and *critical thinking curriculum* were used in online database searches. For the literature review, I explored critical thinking, promoting critical thinking, and assessing critical thinking.

This literature review explored the conceptual framework of critical thinking and the reflective writing approach to promote critical thinking for teaching and learning. Exploring the literature on this concept raised some questions. One question that emerged from this review was the following: How do university instructors develop a reflective approach to promoting critical thinking skills? This study explored how university instructors' use of reflective journals while teaching an 8-week course could inform them about promoting critical thinking among their students.

The concept of critical thinking involves a process of skills and dispositions. Instructors who are able to understand the nuances of critical thinking are able to identify and apply the best methods for critical thinking instruction (Carlson, 2013; Crenshaw et al., 2011; Willigham, 2008). In the meantime, teaching to promote critical thinking is only beneficial if the student is motivated and willing to examine prior knowledge, assumptions, and bias (Harvey & Baumann, 2012; Valenzuela et al., 2011). However, research has indicated that instructors who journey through the process of self-reflection to examine personal bias become better equipped for teaching their students how to become reflective (Başol & Gencel, 2013; Brookfield, 1987; Galbraith & Jones, 2008). This intention to reflect on thinking and assumptions prepares the foundation for critical thinking (Mezirow & Taylor, 2009). Brookfield (1987) further described the importance of instructors of adults being skilled in developing an awareness of assumptions of how they think and act to promote critical thinking among students.

The process of critical thinking produces a general outcome that some view as a thinking or learner transformation (Mezirow, 1990, 1991, 2000; Mezirow & Taylor,

2009; Taylor, 2008). Mezirow (1981) explained two concepts that apply when a person reflects on an issue in order to make meaning from the experience, which may lead to viewing the experience from a different perspective. The first concept is point of view, which involves the person getting immediate feedback. For example, after a class, the instructor might capture a few comments, reactions, or assignments to uncover a possible issue with a teaching method and share these notes with a fellow colleague for feedback. The second concept is habit of mind, which develops over a period of time and can be more difficult to achieve due to a variety of cognitive components. Using the example above, the instructor starts to build a log of comments, reactions, or assignments over the course of a semester. With this, the instructor may reflect on the notes from the previous semester, discuss the information within a faculty training format, and begin to consider all information in the context of effective teaching and learning for future classes. I grounded this study in the concepts of point of view and habit of mind to gain understanding of how instructors who build reflective writing into their practice may become skilled at noticing gaps in practice to improve teaching and learning related to the promotion of critical thinking (Galbraith & Jones, 2008; Kennison, 2012; Mulnix, 2012).

Several writers have recommended reflective writing assignments as a method to promote critical thinking in the curriculum (Bond, 2012; Galbraith & Jones, 2008; Kennison, 2012; Le Cornu, 2009; Marshall & Horton, 2011; Mayes, 2009). Others have recommended a reflective approach to promoting critical thinking in the curriculum that involves reasoning, questioning, analyzing, and evaluating (Mezirow & Taylor, 2009; Nosich, 2001). In addition, promoting critical thinking includes teaching students to be

independent in thought but collaborative in effective communication and problem-solving abilities (Brookfield, 1987; Mulnix, 2012). Instructors who have a clear understanding of critical thinking can apply effective teaching methods to facilitate a student's ability to question, reason, evaluate situations, and make sound judgments in face-to-face and online learning formats (Lee & Ash, 2010; Vidoni, Cleborne, & Maddux, 2002).

The following sections contain a review of scholarly literature about critical thinking, how it is defined, promoting critical thinking, and assessment strategies for critical thinking.

Understanding Critical Thinking

Instructors must agree on the definition of critical thinking before they can promote it among their students. The following section explores definitions of critical thinking from several scholars in the field.

Critical thinking requires an individual to be mindful and open to understanding various viewpoints in order to consider other perspectives (Facione, 1990). Other definitions of critical thinking include making sound judgments through reasoning and careful weighing of evidence while skillfully synthesizing and evaluating information to arrive at the best solution to a problem (Abrami et al., 2008; Alwehaibi, 2012; Carlson, 2012; Paul & Elder, 2009).

Common principles, skills, and dispositions form a baseline for critical thinking: questioning, analyzing evaluating, reasoning, reflecting, and believing. Critical thinking enables individuals to make informed decisions and can enhance the quality of an

individual's life and a healthy democracy (Brookfield, 1987; Crenshaw, Hale, & Harper, 2011; Lim, 2011). Paul and Elder (2009) described critical thinking as a deliberate act of analyzing and evaluating thinking that involves elements of reasoning that are systematically cultivated.

Critical thinking is a self-directed practice that takes discipline, time, and deliberate effort by the individual (Facione, 2011; Paul & Elder, 2006; Shah, 2010; Toy & Ok, 2012). This self-directed action is an important component of critical thinking, because without it, critical thinking would remain dormant (Bleicher, 2011). In addition, the individual must be willing, open-minded, and able to recognize personal bias. This self-examination is necessary in order to develop the individual's thinking to go beyond the surface of the current bias or assumption. Critical thinking abilities overlap with the skills of effective communication and effective problem solving. With this in mind, Nosich (2001) understood critical thinking as going beyond problem solving to making the best decision through careful examination of the facts and alternatives that support the facts.

Elements of thought, intellectual standards of reasoning, questioning, analyzing, and assessing problems all play important roles in developing critical thinking skills. Berzins and Sofo (2008) described critical thinking as a metacognitive process of thinking about one's thinking and challenging one's assumptions.

Metacognition is essential to the development of critical thinking and helps the individual focus on the logic, reasoning, and analysis of his or her thinking (Helsdingen et al., 2010; Johnson et al., 2010; Ko & Ho, 2010). Metacognition is the ability to decide

between what one knows and what one does not know (Bensley & Murtagh, 2012; Kelly & Irene, 2010; Magno, 2010). Within the context of critical thinking, metacognition is a thinking process in which the individual must monitor the information being processed, check whether progress is being made toward solving a particular problem or reaching a specific goal, and then confirm accuracy of information and make it public so that it can be examined (as cited in Ku & Ho, 2010).

An individual's thinking goes beyond the surface when the individual reflects on the strategy to properly solve a problem in order to make modifications, if necessary (Alwehaibi, 2012). Metacognitive skills form the development of critical thinking. University instructors may provide opportunities in the first year for students to explore the concept of metacognition by teaching students how to learn, how to be independent thinkers, and how to reflect on other perspectives (Eberly, 2010; Thomas, Davis, & Kazlauskas, 2007; Young & Warren, 2011). As an example, in a study conducted by Ku and Ho (2010) it was discovered that educators who instructed students to verbalize every thought while completing a task disclosed some cognitive ability, deep thinking, and academic performance when measured using the Halpern's Critical Thinking Assessment Using Everyday Scenarios. The results of this study provided evidence that metacognitive strategies (planning, monitoring, evaluating) are an ongoing process in critical thinking and that the mental capacity to comprehend and make sound judgment is necessary to enhance thinking.

Critical thinking is persistent, sound judgment that motivates problem solving and decision making (Aybek & Aldag, 2009; Gervey et al., 2009; Paul & Elder, 2009;

Tümkaya et al., 2009; Valenzuela et al., 2011). Nosich (2001) explained critical thinking as problem solving, but in the most authentic way. He described the approach as developing alternatives, envisioning alternate options, and anticipating consequences, all while keeping goals in sight.

University instructors might have the goal of helping students to understand that critical thinking is not a simple process of logical thought and rational solution. Critical thinking involves noticing and evaluating assumptions. Students may encounter risks or difficulties when questioning what was once believed to be true (Brookfield, 1994; 1995). Instructors who create a classroom environment of intimacy and safety form a nonjudgmental atmosphere where risks can be taken (Bello, 2002). This fosters a collaborative effort from both student and educator. This shared classroom power helps adult educators to encourage students to develop a higher order of thinking, which is a hallmark of adult development (Knowles, 1950).

Instructors can model a reflective approach to critical thinking for students by taking a critical look at how they are teaching, why they are teaching the content, which alternatives they might consider in teaching the content, and how they can learn from feedback (Alshraideh, 2009). Critical thinking is an intentional, self-directed approach that is learned incrementally and grows in size (Brookfield, 1987). This may happen when instructors teach students to view a situation with a universal attitude while also considering the situation from a universal perspective (Berzins & Soho, 2008).

Identifying assumptions and examining bias are a difficult process. Loes, Pascarella, and Umbach (2012) agreed that instructors encourage diversity in questioning

so that problem solving takes place with flexibility and understanding. At the highest level, critical thinking occurs when a problem does not have a single right answer but involves the development and discovery of the best resolution, based on evidence and reason (Paulson, 2011). Paulson (2011) argued that critical thinking is not about arriving at the right answer, but about the process of understanding that the problem could have several answers.

Promoting Critical Thinking

University instructors facilitate growth in their students in a variety of ways. A good instructor may strike a balance between self-reflection as an educator and active engagement with students to create useful learning experiences for students (Galbraith & Jones, 2012). Generally, university instructors are expert in the content they teach but have little preparation in instructional methods to promote personal growth. An effective instructor who is trained in facilitating discussions, incorporating reflective writing assignments, prompting students to ask questions, and challenging students to articulate defensible positions can help students in their journey toward critical thinking (Brookfield, 2010; Galbraith & Jones, 2008, 2012; Nosich, 2009). An instructor who is skilled in facilitating discussions to cause students' thinking to go beyond the surface begins the process of challenging students to examine their belief systems and encourages critical thinking from a logical and rational standpoint (Halx & Reybold, 2005; Lim, 2011). Brookfield (2010) recommended that instructors possess a broad range of pedagogic ability and interpersonal skills to promote critical thinking. He also suggested

that instructors have an openness and willingness to adapt teaching methods according to student need.

A mixed approach of teaching strategies and assignments is at the core of promoting critical thinking. In an empirical study, Abrami et al.,(2008) discovered that educators who had received special training in teaching critical thinking had greater influence on critical thinking skills and dispositions compared to those who had not. Four study features were coded: (a) age of participants, b) type of intervention, c) pedagogical grounding of intervention, and d) presence or absence of collaboration. The age of students taught ranged from elementary-school age to adult. Suggestions were made throughout the study. The first was the use of a general approach in which critical thinking skills and dispositions are taught separately from the content of the subject. The next recommendation was the use of an infusion approach that stimulates students to think critically about the content. Third, an immersion approach involves students in the subject, but general critical thinking principles are not made obvious. Finally, a mixed approach to teaching critical thinking is a combination of all the instructional approaches. Course content and curriculum matter just as much as pedagogy. The researchers discussed requiring professional development for instructors to focus specifically on teaching critical thinking. For an even greater impact on critical thinking, they suggested that both preservice and in-service educators incorporate critical thinking instruction and targeted strategies into their teaching methods (Abrami et al., 2008).

An additional study focused on instructors promoting critical thinking with the use of peers. In a quasi-experimental study of undergraduate science students, peer

leaders were selected based on course completion and proper training in group dynamics and learning theories (Quitadamo, Brahler, & Crouch, 2009). Critical thinking gains were compared between a peer-led team learning (PLTL) group and a non-PLTL group. Results showed that the members of the PLTL group approached a problem by describing their thought process among themselves. This showed skill in asking leading questions to stimulate thinking and analyzing and arguing for solutions to a problem. Results further indicated that PLTL groups showed small but significant critical thinking gains relative to non-PLTL groups (Quitadamo et al., 2009).

Questioning, reasoning, reflecting, and finding evidence to support the facts are initiators of critical thinking, and a skilled adult educator becomes a catalyst for its development (Alshraideh, 2009; Ku & Ho, 2010; Phan, 2011). In a study of critical thinking skills among university students, Alshraideh (2009) uncovered that effectively teaching questioning techniques can change students from passive to active participants. The instructor plays an important role in teaching students how to express ideas and motivating students to listen to others' opinions and evaluate what is going on (Rugutt, 2009). Instructors may model this practice by listening attentively to students and watching behaviors in order to know how to frame questions in a way that students understand (Kucukaydin & Cranton, 2012).

Questioning is an active way to keep students engaged (Elder & Paul, 2008; Jonassen & Kim, 2010; Ryan, 2011). University instructors who are able to model how to ask insightful questions provide a gateway for students to develop critical thinking skills. This guidance gives students the opportunity to recognize when to ask what questions

and how to frame questions for clarity. Without this guidance from an instructor, students would not understand how to draw upon prior knowledge, elaborate on information, or ask intuitive questions (Gillies & Khan, 2009). Although questioning is an essential component to promoting critical thinking, the ability to effectively apply this principle hinges on a supportive and nonthreatening classroom environment. It is important for instructors to have control over workplace space (Gailbraith & Jones, 2012). Personalizing the classroom environment can ensure that synergy flows between the instructor and student and allows the instructor to put meaning to what they are teaching and learning. In addition, instructors who guide students to ask questions and to analyze arguments create a learning atmosphere where students actively participate in others' ideas, challenge perspectives, and elaborate on options before reaching an agreement (Bensley et al., 2010; Crawley & Tally, 2009; Gervey et al., 2009; Gillies & Khan, 2009).

The usefulness of reflective writing to promote critical thinking is dependent on the support of the instructor who understands how to facilitate the process (Kennison, 2012). Instructors must be versed in posing questions to students that foster reflection and ultimately prompts writing (Ireland, 2008). In the meantime, facilitating reflective writing may be time consuming (Duffy, 2008). Additionally, students may struggle with the reflective writing process and run into difficulty reflecting on stressful experiences. Therefore, it is the instructor's responsibility to create a safe and trusting environment for sharing and learning for collaboration to take place (Huang & Kalman, 2012).

A collaborative learning environment creates an opportunity for critical thinking skills to develop (Chabili, 2010). A comparative study looked how well instructors

facilitated students to analyze information using collaboration activities (Mendenhall &
Johnson, 2010). The study investigates instructional strategies using a Web 2.0 tool
called social annotation model learning system (SAM-LS) to improve student thinking,
writing and literacy skills. One area of the study focused on a collaboration strategy
called peer critique. Results showed that when students work in small group or with a
peer, the interaction tested the student's ability to examine their own thinking. The
collaboration with peers required students to go more in-depth with their thought process
and communicate with clarity to the peer. This exercise also created an opportunity for
students to make adjustments to defend their point of view (Mendenhall & Johnson,
2010).

A skilled instructor stimulates discourse among students to promote thinking and
learning (Gillies & Khan, 2009; Jonassen & Kim, 2010). The instructor demonstrates the
value of supportive group interaction with the use of discussions and feedback. Group
discussion is a way for students to share and defend what they currently know, while also
gathering knew knowledge and reflecting on lessons learned (Lee & Ash, 2010;
Mendenhall & Johnson, 2010). Supportive group interaction builds community among
the group. By encouraging feedback, educators guide students in the process of engaging
in a discussion, reflect on the discussion, engage in possible action after learning
something from the discussion, and reflect again (Galbraith & Jones, 2012). Elder and
Paul (2008) argued that instructors who routinely incorporate this practice into their
teaching build value in what the student learns and set the framework for critical
thinking.

Assessment Strategies and Tools

University instructors have the task of promoting critical thinking through a variety of teaching methods and measuring whether or not their efforts, as an educator, are effective (Brookfield, 1995). However, to measure and improve teaching methods, an educator must first simplify what they want students to learn by taking their course. There are several standard tests and rubrics available to measure effective instruction (Leist, Woolwine & Bays, 2012).

Teaching Goals Inventory (TGI) is a questionnaire to help educators identify and rank important methods of their teaching practice (Angelo & Cross, 1993). Researchers developed TGI to uncover what educators think students should learn in their class. Another goal of the TGI is to help educators locate techniques they can adapt and use for other teaching and learning goals. Lastly, the TGI provides data for professional development of teaching and learning among other educators.

For effective teaching and learning for critical thinking, a number of published tools measure critical thinking (Bensely, Crowe, Bernhardt, Buckner, & Allman, 2010; Gustafon & Bocher, 2009; James, Hughes, & Cappa, 2010). To improve programs that make critical thinking a learning outcome, educators may measure students' skills and dispositions using a variety of published tools (Peirce, 2006). These tools include the California Critical Thinking Skills Test, the California Critical Thinking Dispositions Inventory, Cornell Critical Thinking Test, the Ennis-Weir Critical Thinking Essay Test and the Watson-Glaser Critical Thinking Appraisal (Ennis & Millman, 1985; Facione, 1990; Facione & Facione, 1992; Watson & Glaser, 1980). All of the assessments vary in

purpose, format, and are generally not topic specific (Stein & Hayes, 2011; Nicol, 2009; Stark, 2012). Educators must first agree on a suitable definition of critical thinking, determine what skills or dispositions to measure, and which test is appropriate to improve teaching and learning (Leist, et al., 2012; Leighton & Gierl, 2007; Stein & Haynes, 2011).

The California Critical Thinking Skills Test (CCTST) is a 34-item multiple choice standardize assessment to evaluate critical thinking in five areas: analysis, interpretation, evaluation, deductive, and inductive reasoning (Facione & Facione, 1990; Facione, 2000). The use of this assessment allows programs to measure student's critical thinking ability. Institutions generally give a pretest before students begin a program and a posttest once the program is completed (Alschraideh, 2009). CCTST is most widely used, among faculty, to measure critical thinking skills (Hatcher, 2011).

The California Critical Thinking Dispositions Inventory (CCTDI) is a multiple-choice test to measure critical thinking dispositions (Facione & Facione, 1992). A critical thinking skill is not the same as a critical thinking disposition. A critical thinking disposition relies on the individual using knowledge and attitude toward a specific circumstance (Zhou, Yan, Zhao, Liu, & Xing, 2012). The CCTDI gauges the scope of critical thinking through the application of mindfulness, analytical thinking and eagerness for knowledge, for example. Studies support that there is a relationship between critical thinking dispositions and perceived problem solving skills and that programs should incorporate critical thinking into the curriculum (Wangesteen, et al., 2011; Tümkaya, et al., 2009).

The Watson-Glaser Critical Thinking Appraisal (WGCTA) has several versions that measure a students' ability to evaluate an argument through multiple-choice questions (Watson & Glaser, 1980). The WGCTA measures students' on induction, assumption identification, deduction, judgment, and argument analysis. The revised Watson-Glaser Critical Thinking Appraisal transitioned from a Form A to a new version called Form-S (WGCTA-FS). In a study to investigate the reliability and validity of WGCTA, Gadzella, et al (2006) used a shorter version (WGCTA-FS) with 40 items. A correlation between course grades and responses to the five scenarios on the WGCTA-FS determined the results. The overall score revealed proficiency in attitude, knowledge and skill as it relates to the validity and reliability to WGCTA-FS as a measuring tool for critical thinking (Gadzella, et al., 2006). Items on the Watson-Glaser Critical Thinking Appraisal consistently require participants to examine evidence and to think (Alshraideh, 2009).

Another multiple-choice assessment is the Cornell Critical Thinking Test, Level X (CLX) and Level Z (CLZ) (Ennis & Millman, 1985). This technique is best to measure students on induction, credibility, prediction, observation and identifying assumptions. Other classroom techniques that measure how well students use their skills in problem solving, arguing, synthesizing, and making sound decisions include, Critical Thinking Interview, the Ennis-Weir Critical Thinking Essay Test and the Holistic Critical Thinking Scoring Rubric (Ennis & Weir, 1985; Facione & Facione, 1994; Hughes, 1998)

Implications

Becoming a skillful instructor is a challenging task, without one set model to apply to every teaching situation (Galbraith, 2008). Teaching to promote critical thinking further adds to the challenge of guiding students to reflect and understand their beliefs, values, attitudes, and examine their assumptions. An instructor may encounter difficulty when trying to teach a student to think on a deeper level, especially if the educator has not deepened their understanding of themselves for professional and personal growth (Bond, 2012; Galbraith & Jones, 2012, 2008; Mulnix, 2012; Kennison, 2012).

Through this study, I examined the teachings and perceptions of university instructors of 1-capstone course at MU to understand the most effective approach to promote critical thinking among adult students. This study may contribute to the growing literature of how to become a good university instructor, specifically in the area of critical thinking and reflective practice. Implications of this study contributed to the development of a training course for university instructors to use to help implement similar reflective activities to promote critical thinking skills. University instructors at the local setting may find a classroom assessment strategy to provide feedback on best practices for teaching and learning. Results from this research might possibly serve to provide university instructors with insight on how developing a reflective approach to teaching may deepen their understanding of themselves, their students, and their curriculum.

Summary

This literature reviewed examined how university instructors promote critical thinking by adapting their teaching style to meet student needs. Instructors might apply

numerous tactics to uncover the best practice that may keep students engaged while also examining current beliefs, actions, assumptions, and ideas. Some key components are to understand the effectiveness of teaching and learning, and classroom assessment strategies, and tools.

Most researchers agree that critical thinking is difficult to define and even more challenging to teach (Abrami, et al., 2006). With that in mind, most definitions of critical thinking are similar in pointing out that it requires a process, which involves reasoning, questioning, evaluating, analysis, and interpretation (Paul & Elder, 2009; Gervey, et al., 2009). In addition, problem-solving is an attribute that works within the critical thinking process, which Halx & Reybold (2005) describe as exhausting. Nevertheless, most university instructors understand that critical thinking is not an easy task, but Tokay, et al. (2009) suggested implementing new teaching strategies to promote both critical thinking and problem solving into all programs, are necessary. In the meantime, a variety of standardized tests can measure skills and dispositions of critical thinking; however, instructors must have clear guidance on choosing the best tests to fit which skills to test that measures critical thinking (Godzilla, et al. ,2006).

Section 2 provides a description of the methodology for this study.

Section 2: The Methodology

Introduction

The purpose of this qualitative study was to investigate how university instructors perceive their role in promoting critical thinking in adult students enrolled in a 4-year undergraduate program. The goal of the research findings was to develop a framework for individuals to reflect on actions, ideas, and assumptions in order to consider alternative ways of behaving and looking at the world from a more critical perspective (Celuch & Slama, 2002). A qualitative case study design was employed (Glesne, 2011; Merriam, 2009; Stake, 1995; Yin, 2008, 2011). In the following pages, I explain the research design and rationale and provide an overview of the participants, data collection methods, and methods for data analysis.

Qualitative Research Design and Approach

The following questions guided this research and informed the methodology, data collection, and data analysis:

How do university instructors approach critical thinking goals in two undergraduate capstone courses?

   a. What teaching methods do university instructors describe as effectively promoting a critical thinking curriculum?

   b. How are classroom assessment strategies used to measure critical thinking?

The search for meaning and understanding within a single unit or single body of work best explains a *bounded system* (Merriam, 2009). This case study was bound by one particular undergraduate program.

This case study provided detailed descriptions of how university instructors explained their role in promoting critical thinking among their adult students, thereby adding to any possible demographic information of the study. In a case study, the perceptions of the participants are examined to understand a possible relationship between what is perceived and the bounded system under review (Creswell, 2003). The system in this case study was bound by the time and place of the capstone courses within a particular undergraduate program. In a case study, there are various methods of data collection (Yin, 2009). Data collected for this case study derived from semistructured interviews, observations, and reflective journals. Triangulation of all the data uncovered any issues in the case (Merriam, 2009).

It was my intention to examine the practices of university instructors who taught the required courses and how they perceived their role in promoting critical thinking with their adult students.

Rationale for Research Design

The interviews, observation, and reflective journals provided thick, rich descriptions for this case study. Case study research focuses on a specific event or program with enriched descriptions to bring a better understanding of the event or program being studied (Merriam, 2009). A case study method is used when a researcher seeks to answer questions of *how* about a topic (Yin, 2009). I investigated how university

instructors perceived their role in promoting critical thinking. It was my intention to design this research in a way that met Merriam's outline for qualitative case studies by focusing on a specific program, using rich descriptions of the program, and capturing complex perceptions of the program. Merriam described these characteristics of a case study of being particularistic, descriptive, and heuristic (Merriam, 2009, p. 43).

Setting and Participants

Midwest University (MU) is a small, Christian-based, not-for-profit liberal arts institution. MU founded its traditional campus location in the mid-1800s and opened its first adult learning center during the early 1970s. The increased demand for programs designed to meet the needs of nontraditional adult students prompted the expansion of MU to include adult learning centers across the Midwest and Southwest United States. All instructors who teach at MU must have the required credentials of at least a master's-level degree in the field or discipline; however, a doctoral-level degree is preferred. Within the established adult learning centers was an integrated liberal arts program that incorporated a required course for all adult students enrolled in a 4-year undergraduate program.

Approximately 27 potential participants had experience teaching the capstone courses. Depending on current term enrollment, instructors received an email notification of availability to teach one of the two courses. Fourteen instructors had experience teaching at the face-to-face campus identified for this study. I did not include myself in the number of instructors who had experience teaching the Writing and Critical Thinking in the Liberal Arts course, although I had taught the course both face to face and online.

Thirteen instructors had experience teaching the same courses online. The instructors had a variety of experience in both professional and educational disciplines. Their experience and beliefs all contributed to their perception in promoting critical thinking with their adult students.

After Walden Institutional Review Board approved the study, #03-24-14-0184518, the 14 experienced instructors at the face-to-face campus received an invitation email to participate first (see Appendix A). The potential participants had two weeks to respond to the invitation. At the end of the two week timeframe, the instructors who agreed to participate received a confirmation email and consent form. The optimal number of participants proposed for the interviews and reflective journals was 10-12; however, only five instructors agreed to participate in this study. In order to get the best combination of participants, purposeful sampling was used to select participants for maximum variation based on criteria as listed in the invitation (see Appendix A). In order to select those who embodied the widest possible range of the characteristics, maximum variation sampling was used to represent different experiences and perspectives for the study (Glesne, 2011; Merriam, 2009). Interviews were conducted first. At the end of the interviews, participants were asked to volunteer for the class observation (see Appendix E). Only one participant who taught at the face-to-face campus volunteered for the observation. With only one observation, more attention to detail and in-depth understanding was gained (Yin, 2010).

Ethical Protection of Participants

All procedures and ethical guidelines set forth by Walden University were followed to ensure accuracy in the case study. I recruited participants with an invitation email outlining the study. Those who agreed received a consent form (see Appendix C) that detailed the purpose and explained the measures of the study. The informed consent included a statement that there were no consequences for declining the invitation to participate. All information gathered from this study was kept confidential. Pseudonyms maintained privacy. To gain access to participants, I obtained written permission from administrators of the university to conduct this study and interview participants (see Appendix D).

Once IRB approved, all instructors who taught Writing & Critical Thinking in the Liberal Arts and Global Issues in the Liberal Arts received an e-mail inviting them to participate (see Appendix A & B). An informed consent form was sent to participants explaining the purpose of the study (see Appendix C). Those invited were advised that they could choose not to participate or to withdraw at any time without affecting their relationship with me or the university. Each participant was informed that all information would be kept confidential and that personal information and names would not be associated with any other information obtained.

Proper steps were taken to obtain approval from the Institutional Review Board of Walden University and Midwest University before data collection began. To protect confidentiality and eliminate possible harm, all interviews, observation notes, and reflective journal entries had an identifying notation that kept them organized and easily

accessed for the analysis and report (Merriam, 2009). All information was secured in a locked box; these data will be kept for 5 years and will be destroyed after that point.

Data Collection

Data were collected through a variety of sources including interviews, observations, and reflective journals. Multiple sources of data provided triangulation of the information as a way to validate information from the participants. The interviews, observations, and reflective journals allowed rich descriptions of teaching methods from the participants' perspective. Collecting multiple perspectives from the instructors provided an understanding of what it meant to promote critical thinking among adult students. In the meantime, different views of how to promote critical thinking with college students and any inconsistency exposed the challenge of what it meant to foster a different way of thinking with adult students.

This case study focused on close examination of the university instructors' perceptions of how the effects of their teaching developed critical thinking. Participants completed a background form with information such as highest level of education, years teaching the course, and academic field. Participants were interviewed twice, once within the first week of the eight week term and again during the last week of the term. One observation took place midway through the term. In addition, participants were asked to keep a reflective journal that prompted them to reflect and write about ideas, thoughts, and questions from their teaching practices used during the 8-week term.

Interviews

For this study, interviews were a mix of structured and semistructured with open-ended questions (Merriam, 2009). Interviews took place on two different occasions during the two-phase data collection process. Questions were established before the interview was conducted (Appendix C) but were modified once the interview was underway (Glesne, 2011; Merriam, 2009). The interviews allowed an examination of the perceptions of participants concerning how they promoted critical thinking among students. Interviews took place in person, by telephone, and online (Merriam, 2009). The first interview lasted approximately 45-60 minutes. The follow-up interview lasted approximately 30-45 minutes. Information from the interviews was handwritten and digitally recorded. Recording the interviews allowed for accurate transcription of the responses.

Observations

One instructor was observed for this study. Two observations took place and lasted approximately 60 minutes each (Hancock, & Algozzine, 2006). The observation allowed me to see, hear, and feel gestures from the instructor in a classroom setting and reactions from students in their attempt to demonstrate critical thinking abilities (Appendix E). The observation guide provided an understanding of instructor/student relationships and the assessment used inside the classroom (Appendix E). These aspects of the observation were important because they revealed patterns when compared to the interview. Field notes were written during and soon after the observation (Merriam, 2009). The focus of the observations was to gain understanding of the teaching methods

used to promote critical thinking and how instructors assessed critical thinking. Full notes from the observation were typed in narrative form (Merriam, 2009).

Reflective Journals

To understand the instructors' perspective over time and their reflections on practice, each instructor kept a reflective journal (Aitken, & Deaker, 2007; Erlandson, & Beach, 2008). A written account of experiences was a useful tool to inform teaching and research practices (Phelps, 2005; Simpson, & Courtney, 2007). The reflective journal provided a method for participants to actively engage and become more aware of their learning and teaching (Mayo, 2003; Moss, Springer & Dehr, 2008; Phelps, 2005).

Participants were asked to keep a weekly log of reflections, ideas, and experiences within the context of teaching the required liberal arts course for an eight week term (see Appendix F). I have taught the Writing and Critical Thinking in the Liberal Arts course, which informed the development of the reflective journal prompts. The reflective journal was created in an electronic format that was username/password protected. The electronic journal required approximately 5-7 minutes after each class meeting and was only available to individual participants. I had access to all journals, but the participants only had access to their own journals.

Storing and Handling Data

All information for this study was organized and stored in an electronic filing system on a personal computer for data management and analysis. The electronic data were username/password protected. Data were backed up and stored on a USB travel

drive. The travel drive was secured in a locked cabinet. The only person with access to the secure cabinet was me.

Role of the Researcher

I had taught courses for Midwest University, both face to face and online. I knew what the strengths and weaknesses were in teaching the Writing and Critical Thinking in Liberal Arts course. I had worked on a contract basis, based on the teaching needs for any given eight week term. For this study, my assumptions and any possible bias were temporarily set aside so that I could examine all findings from an objective point of view (Merriam, 2009). My current professional relationship with potential participants was one of colleague with no supervisory role.

As the researcher of this study, I selected participants based on set criteria. In the role of researcher, I managed the informed consent process to ensure accuracy and ethical compliance. In addition, I collected all interview data, observations, and reflective journals plus all data transcriptions.

I adhered to the ethical standards and engaged in good writing practice by withholding any biased language that could have had potential to demean any participants or organizations. Pseudonyms protected participants and organizations. I reviewed the guidelines set forth by the American Psychological Association (APA, 2010) and applied those guidelines to writing strategies to reduce bias in the words used in the research study.

Data Analysis

Data analysis occurred along with data collection (Glesne, 2011; Merriam, 2009; Miles, Huberman, & Saldaňa, 2014; Yin, 2010). I began data analysis during data collection. I kept two sets of organized data, one electronic and one hard copy. I analyzed and organized by hand. No qualitative software program was used. I analyzed this qualitative study to gain understanding of how to make sense of the data in order to answer the research questions. I made meaning of the data I collect by applying the following steps:

1. Organized all data to construct categories, themes, or patterns from the interviews, observations, and reflective journals..

2. Sorted the categories to assign codes, colors, or names.

3. Made inference and told the story of the data by chart, diagram, or table.

4. Validated findings by comparing to the literature and through member checks (Miles, Huberman, & Saldaňa, 2014).

Coding Procedures

To begin coding, all transcripts were read, with notes indicated in the margins. Next, transcripts and notes were divided into segments with similar colors for each related section (Creswell, 2012). Data with a particular color were grouped together. Interviews and observations were coded to uncover emerging themes (Yin, 2010). In the meantime, to provide an in-depth picture of the case, themes were created in relation to how well the data addressed the research questions. Categories of data were reviewed and refined to link together and move the analysis toward the meaning of the collected data

(Merriam, 2009). Multiple sources of data were triangulated to ensure accuracy. Participants were provided with an opportunity to check preliminary findings from the interviews, observations, and their own reflective journals to offer feedback and establish validity (Merriam, 2009).

The second part of Section 2 details the data collection, data analysis, and findings for the final study.

Data Collection

The data collection included three methods: interviews, observations, and reflective journals. On April 21, 2014, I emailed the administration of the adult campuses of Midwest University for a list of instructors currently teaching the Writing and Critical Thinking in the Liberal Arts and Global Issues in the Liberal Arts courses. The adult campuses of MU are set up on eight week terms. The Summer 1 term was due to begin May 5, 2014. I sent out an initial email to 14 potential participants inviting them to participate in the study. The email contained the qualitative consent form (see Appendix B). Of the 14 who were invited, only one instructor, who was scheduled to teach Writing and Critical Thinking in the Liberal Arts (WCTLA), agreed to participate in the study. There were two instructors scheduled to teach the Global Issues in the Liberal Arts (GILA) course for Summer 1 term, and each declined to participate in the study. Because the two instructors declined to participate, there were no participants who taught the GILA capstone course for this study—only the one participant who taught the WCTLA capstone course. However, the low number of participants allowed me to go deep with details and descriptions of the participants' perception of promoting critical thinking

among adult students. The lack of response from participants was due in part to low student enrollment for the Summer 1 term. The low enrollment meant fewer classes being offered and fewer instructors.

A change of request to the IRB data collection was sent to both Walden University and MU's IRB committee in an attempt to recruit more participants for the study. The form requested to include all five MU campus locations in effort to recruit more participants. Once approval was received, email invitations went to all 44 instructors with experience teaching the two capstone courses across five campus locations. I received replies from ten instructors indicating 'interest' in participating in the study. When I followed-up with consent forms to proceed with data collection, only four instructors agreed. Therefore, a total of five instructors participated in this study. All five participants had experience teaching the Writing and Critical Thinking in the Liberal Arts capstone course. No instructors who taught the Global Issues in the Liberal Arts capstone course participated in the study. Participants will be referred to as Participant 1; Participant 2, etc.

Each participant was asked to sign the consent form by replying to the email invite with the words "I consent" via email. This consent form was collected and locked in a safe at the researcher's home. Participant 1 was located at a campus within a 50-mile radius of the researcher's home and agreed to a face-to-face interview. A face-to-face interview was scheduled at the convenience of Participant 1's schedule, in a private room with no one else present. At the end of Interview #1 with Participant 1, a follow up interview was set (see Appendix C). There was a schedule conflict and Participant 1

agreed to be interviewed by phone for Interview #2. Due to the distance of the remaining four participants, they were interviewed by phone. All interviews were audio recorded. I informed each participant that the interview would be audio recorded for transcription purposes before the initial interview began. At the end of each interview, I listened to the audio recording and transcribed the audio recording by hand.

Two classroom observations took place at the campus location of Participant 1. The first observation happened during week two of the eight week term. The second observation happened during week four. Each observation lasted approximately 1.5 hours of the 3-hour class meeting. With the observation guide (see Appendix D) I took field notes on ways critical thinking skills may have been demonstrated. At the end of each observation, I recorded my reflections in my observation notebook. No observation took place for Participant 2, Participant 3, Participant 4 and Participant 5 due to distance from the researcher's home to each campus location.

Reflective journals were set up electronically using Survey Monkey. Participants received a link, via email, that took them directly to the journal prompts. Upon accessing the reflective journals, participants were given the purpose and confidentiality agreement of the reflective journal guide (see Appendix E). Each week, a friendly reminder to complete the journal prompts was sent to each participant. Since Participant 2 and Participant 4 were not teaching for the Summer 1 term, I asked them to rely on their reflections from teaching the WCTLA course the previous term. Once all reflective journal responses were collected, I reviewed responses and highlighted key words to begin the coding process. I compared the field notes of the observation guide, the

participants' responses to the interview questions, and triangulated with the syllabus and other course documents to begin the data analysis.

Data Analysis

The data collection phase began as data were collected (Glesne, 2011; Merriam, 2009; Miles, et al., 2014; Yin, 2010). First, the group of potential participants were identified (university instructors) and emailed invitations and consent forms. Next, interviews were scheduled with all five instructors, to gain insight on the perceptions to teaching the capstone course and promoting critical thinking. In addition, one face to face class was observed, to gather first hand information on classroom practices. Throughout the data collection, reflective journal responses were gathered, each week, to understand best practices demonstrated in the classroom and challenges met along the way. As I started to receive reflective journal responses, I organized my notes in both electronic and hard copy form. All data were analyzed and organized by hand and with the use of Microsoft® Word (LaPelle, 2004). The table feature in Microsoft® Word helped to categorize responses from interviews, observations, and reflective journals. I read all transcripts and indicated notes in the margins, then divided notes into segments with similar words or phrases and assigned a color to each section. Interview responses with a particular color were compared to reflective journal responses and observation notes. Any data that were redundant was grouped and assigned a color to uncover emerging themes (Yin, 2010). Themes were created in relation to how well the data connected to each research question.

Once data collection was complete, all three data sources were triangulated to uncover how university instructors approach critical thinking goals in an undergraduate capstone course. All five participants reviewed the findings to ensure that their own perceptions and themes were captured accurately. To provide an in depth picture of the case, the findings will be presented in narrative form using direct quotes from the instructors to support each theme.

Transformative Learning

Midwest University designed an adult learning program with a university wide understanding that instructors will engage students in exploring and understanding different ways of knowing through activities, readings and discussions. This is in an effort to strengthen the reflective and critical thinking skills of students enrolled in the undergraduate program (course syllabus). This facilitating approach may be a bit different from traditional college classroom teaching methods because adult learners have more life experiences and multiple responsibilities. One goal of the adult learning program at MU is to guide students into making meaning from their experiences to possibly transform the students' ideas, perceptions or actions.

Participant Profile

A total of five university instructors volunteered to participate in this case study. I conducted two interviews with each of the five instructors. The participants consisted of four females and one male who had experience teaching the Writing and Critical Thinking in the Liberal Arts capstone course. Their years teaching the capstone course ranged from one to six years. All participants' highest level of education was a master's

degree with academic field ranging from MBA, Psychology, Human Resources, Management, and Teacher Leadership. One participant is currently enrolled in a PhD program. None of the participants who volunteered, taught the Global Issues in the Liberal Arts capstone course. All five participants completed the reflective journals and interviews. Due to the geographic distance of each adult campus location, Participant 1 was the only participant who was observed. In the meantime, Participant 3 was the only instructor who taught the capstone course in an asynchronous online format. In the following sections a detailed description and analysis of the participants' interview responses, reflective journals, and my classroom observation is provided.

Findings

Themes were created in relation to how well the data from the interviews, observations and reflective journals connected to each research question. Three themes emerged through the analysis process; common practices to promote critical thinking, challenges to promoting a critical thinking curriculum, and level of importance placed on assessing critical thinking.

Common Practices to Promote Critical Thinking

Both sides of the table: Facilitating discussions. The university instructors reported in their interview, observation and reflective journal responses a common strategy to teach or promote critical thinking by facilitating a class discussion. Adult students who enter into the undergraduate program at MU are guided to analyze the strengths they bring to the liberal arts education and examine the challenges for learning and growth. The course syllabus states,

the university's philosophy of teaching and learning supports the theories and principles of the andragogical model, whereby education for students becomes a shared experience amongst the students and facilitators of instruction. The university's learning community fosters a social climate of respect and collaborative modes of learning that draw on the adult student's previous life, work, and academic experiences, while encouraging active involvement in what and how the adult learns. (university syllabus, 2013, p. 1)

One way instructors modify their teaching strategy to collaborate with students' experiences is with a class discussion. This method creates a building block for the student's voice to be heard and to take in other perspectives.

I try not to be the only voice in the room (P1, journal, Week 1).

Students look to me for all the answers. When I help them to realize that I don't have all the answers, but can help them discover several answers, their eyes brighten (P5, interview, Week 6).

I never want my students to feel like they are in this alone (P2, interview, Week 2).

Learning comes from both sides of the table (P1, interview, Week 2).

What about this? Probing questions. In the Writing and Critical Thinking in the Liberal Arts capstone course, students are expected to engage, analyze, infer and reason through discussion and writing. Many writing assignments are designed around a liberal arts framework to help students relate concepts to art, communication, social science, technology, psychology, science and ethical issues. "Students strengthen skills in

reflective and critical thinking, written and oral communication, problem-solving,

information literacy, and research writing as they explore knowledge and values in the

interdisciplinary context of the liberal arts" (course description/course syllabus).

The perception that class discussion played a major role in promoting critical

thinking prompted instructors to share their method for asking probing questions.

Instructors teaching methods guide students to connect what they already know in order

to develop new meaning or view the experience from a different perspective. Participant

4 gave his style of teaching the term, "coaching". He had a background in business and

had been trained to engage students by being more conversational and less lecturer. He

gave the example that after a 30-minute conversation, if he noticed that a student was not

engaged, he would then 'call them out'. "Hey, what do you think…." (P4, interview,

Week 2). He would then ask an open-ended question to reel the student back into the

conversation. Participant 4's perception on how he keeps students engaged in the

conversation or discussion is demonstrated in this response,

I don't necessarily provide them with answers, but keep them engaged so they can

figure things out. They may ask me, so what does this mean? And I would phrase

it back to them and pose the same question to one of the other students to let them

figure it out to get them to try and teach each other a little bit (P4, interview,

Week 1).

I like to use a brain teaser type exercise to make students think…i.e., a butcher is

6 feet tall. What does he weigh? Answer – meat. This type of exercise makes

students look at ALL the facts (P5, interview, Week 2).

Responses from the interviews, observations, and reflective journals supported the instructors' perceptions that the conversation or 'coaching' teaching style was better than the lecture.

> The students were able to engage in this week's lesson by contributing to discussions utilizing their own specific experiences (P1, journal, Week 1).
>
> At various times during class, the students took turns answering questions and/or giving feedback or asking more questions for clarity (P1, journal, Week 2).
>
> I do believe the students enjoy the discussions forums (P3, journal, Week 1).
>
> I like to play devil's advocate when discussions are taking place. I continue to ask questions to get students to dig deeper and simply not take things at face value. I constantly remind students not to generalize (P5, interview, Week 5).

The level of engagement in the online class is a bit different from the face-to-face class meeting, yet the classes start dates are the same and last an 8-week term.

> When I notice the majority of the class are in agreement with what has already been said in the discussion board, I pose a totally different view and then set back and watch the discussion unfold (P3, journal, Week 3).
>
> With each response I write to a student's posting, I use their name, "John…Maggie, what can you add to this rich discussion? Please share an example…" This helps me to keep them engaged…(P3, journal, Week 4).

Learn from the past: Learning autobiography assignment. Week one of the capstone course requires students, both online and face to face, to complete several assignments that include; weekly readings, video, and discussion prompt. This is in

addition to completing an informal learning assessment where the student is required to reflect and analyze the strength as identified in each assessment and refer to the results and meaning within the essay. In the meantime, a learning autobiography (LAB) is the first narrative writing assignment. The LAB requires students to reflect and write about past formal and informal educational experiences, and analyze its meaning and influence on their learning (course syllabus, 2013, p 3). Students are expected to include explicit references from the weekly reading, as it relates to their personal learning experiences. Students are also expected to reflect on the results of their informal learning assessment and relate it how that information can enhance their success as an adult student. The writing template guides students to reflect, write, and apply formatting requirements using APA. University instructors' perceived writing assignments to promote critical thinking were measured using weekly reflective journals.

The students seemed to enjoy going over the critical thinking information (P1, journal, Week 2).

It was pleasant to see the students begin to correlate the concept of what encompasses their liberal arts education (P2, journal, Week 3).

The first week is a lot of information, but after the first writing assignment they begin to put pieces together. I think the learning essays are a true turning point for some (P3, journal, Week 2).

The results of the learning inventory and then writing the essay helps students apply real life situations to theories/concepts. It helps them to demonstrate

knowledge about a topic, sometimes it's a quick process sometimes late,

depending on the individual (P4, journal Week 3).

Reflecting, discussing, and writing about life experiences is a strong component

to the Writing & Critical Thinking in the Liberal Arts capstone course. Over the eight

week term, students are required to complete: learning style inventory, four essays,

develop a research question, reference list, research outline, and research paper, in

addition to weekly readings and weekly discussions. Each assignment is designed to

connect the student to a personal transformation to promote a better understanding of the

self. In the next section, the responses of the participants will be shared to gain

understanding of their task at teaching methods that effectively promote critical thinking

and learner transformation.

Challenges to Promoting Critical Thinking

Setting the foundation. Instructors help students to navigate through their

understanding of the principles of the course with various writing assignments, weekly

readings and research paper. However, the eight week term may present a challenge for

some instructors to effectively teach how to apply the scientific method to the research

component that is heavily steeped in APA format. Some university instructors perceived

the challenge to promoting critical thinking was due to too much information to cover

and lack of time.

In this class, the research paper takes priority, but there is not enough time to

focus on APA…perhaps simply have a class devoted to critical thinking (P5,

interview, Week 5).

Research writing is tough (P2, interview, Week 1).

Kind of a challenge at times, to get people to think outside their normal day to day

thinking, then the research piece happens and it's a bit of a stretch (P4, interview,

Week 6)

The first week is overloaded because there is so much ground to cover and there

is no face to face interaction. I could feel the anxiety from the tone of students'

online participation. My inbox was flooded (P3, interview, Week 8).

Meanwhile, the self-examination process may also be a challenge for instructors to
navigate due to students' inability to reflect.

A few students struggled with reflection because they didn't want to re-live the

experience (P4, journal, Week 4).

I try to understand why students are having a difficult time. I remind them that

we take every step one by one (P5, journal, Week 5).

Promoting a critical thinking curriculum: Academic information literacy.

Making meaning from experience is a core component to WU's undergraduate capstone

courses. The course syllabus indicates that students are to explore different ways of

knowing through activities, readings and discussions. These topics of learning are all

framed around four breadth areas: art/expression; social/civic; value/meaning;

science/description. There are various approaches to facilitate critical thinking. One way

to demonstrate critical thinking is by examining one's own values through reflecting,

questioning, writing, and analyzing personal beliefs and the perspectives of others. This

process may show to be a challenge for some instructors who teaching the Writing and

Critical Thinking in the Liberal Arts capstone course. The critical thinking curriculum of this course has a required research component where instructors guide students in the knowledge and skill of academic information literacy. All students are required to apply the American Psychological Association formatting to all writing assignments.

> Most students have been out of the classroom for a long time, maybe 30 years or more, then they come back to school and we expect them to understand APA. It's a lot of information…(P2, interview, Week 1)

> It's a bit of a pull and a reach to get students to switch from first-person writing to objective/research writing – but there is progress (P1, interview, Week 8).

> The mechanics of APA writing are tough. Students tend to be much better writing essays then research…(P4, journal, Week 8)

> The research paper felt rushed. So much time spend on breadth areas it limited the in-class time preparation for students to work on research. (P5, journal, Week 8).

Promoting a critical thinking curriculum: Student engagement. An observation took place twice at the face to face campus location of Participant 1. The first observation happened during week two of the eight week term. The second observation happened during week four. Each observation lasted approximately 1.5 hours of the 3-hour/1-night a week class. A large u-shaped table, set for 14 students was in the center of the room. The room was brightly lit with plenty of space to move around. Each student had a laptop in front of them on the table. Upon entering the room, the instructor checked the thermostat and asked if everyone was comfortable. She easily transitioned to begin class by asking the students to turn on their laptops and log into the Blackboard classroom.

No student completed the previous week's assignment. The observation indicated the challenge in promoting critical thinking when there is low class enrollment and minimal student engagement. The class started with five enrolled students in week one. By the time the observation took place, the class dropped to three students, one male and two females. The two females appeared more of traditional college age, 18-23. They appeared to be friends and chatted frequently with each other, but had little to contribute to the class discussion. When one of the two female students would add her opinion to the discussion, the other female student would giggle. The female student who had spoken became visibly embarrassed and uncomfortable. The older male student contributed to the discussion and would often pose questions to keep the conversation going, but received minimal response from his classmates; instead the instructor filled the sometimes-awkward silence with scenarios or additional questions. The instructor appeared to maintain a calm demeanor but her voice was stern when she encouraged the class to actively participate to earn some points instead of receiving a zero. She followed up with the comment, "learning happens on both sides of the table." The instructor further encouraged engagement by calling students by name and instructing one of the female students to read a question out loud.

In the follow up interview with Participant 1, she explained the main challenge for her in teaching the capstone course was the lack of preparedness on student's part and lack of student engagement during discussions. She felt it was a challenge to promote critical thinking because only one student really contributed. The one male student would reflect and relate to discussions and other materials covered in the class, and share those

'ah-ha' moments because he was able to apply real world application on his job. He had 'buy in''. He was self-directed by going beyond what was discussed in class and finding additional information on YouTube, for example, and sharing it with the class. By week six of the eight week term, the two female students dropped the class, which left the one male student. He was the only student to successfully complete the course during the observation with Participant 1.

Level of Importance Placed on Assessing Critical Thinking

Measuring discussions with rubrics. Instructional strategies that include a high level of researching, questioning, and small group discussions might be important to promoting critical thinking among students; in the meantime, assessment strategies used to measure critical thinking is also a factor. A common tool emerged from the data collected as measuring student performance in the undergraduate capstone course. Rubrics are used both in the online and face to face class. All writing assignments have a rubric that is tailored to give the instructor an indication on student's ability to reflect and write about a personal experience.

> The student gives personal input into the topic of the essay. Personal experiences included and these experiences are reflected upon (course rubric).

In the meantime, there is no specific critical thinking category or the term 'critical thinking' listed on the rubric for writing assignments. However, the discussion participation rubric for the online course specifically uses the term 'critical thinking' six different times across three grading categories.

20-16 points - promoted critical discussion and critical thinking…or used critical thinking and related to personal experiences…

15 – 11 points - promoted discussion but lacked elements of critical thinking… or used critical thinking and related to personal experiences.

10 – 6 points –responded to peers that explored further discussion but did not promote critical thinking…or there was little evidence of critical thinking.

Meanwhile, there was no discussion participation rubric for the face to face course. Students can earn up to five points for participation and five points for attendance in the face to face course. Without a formal discussion rubric, it is at the instructor's discretion how weekly participation points are earned, for the face-to-face capstone course.

Measuring writing with rubrics. Instructors also use rubrics to assess student's writing assignments by measuring assignment criteria, personal reflection, organization, and mechanics and formatting. The interview revealed that students progress at different levels and the rubrics help to identify improvement over the eight week term, as it relates to writing mechanics.

Students seem to really struggle with sentence and paragraph structure, but I could see from week to week overall improvement (P4, interview, Week 1). Each week you could see progression and light bulbs going off…"Oh, so that what you meant by that.." (P2, interview, Week 6).

In addition to the learning autobiography narrative essays, students must write a poem that is prompted by a piece of art or photograph of their choice. An artist should create the art piece, which the student selects. Photographs of personal family, friends,

etc. are not appropriate for the assignment. The grading criteria for the poem is divided into three sections; connection to artwork, content and style, and mechanics. Some of the standards under the content and style section, guides instructors to grade students on how well the poem conveys a sense of understanding of the world in an aesthetic (course scoring rubric). The term 'critical thinking' is not listed as a standard in the poems scoring rubric. Meanwhile, some instructors perceived the poem assignment as a tool for students to build creative abilities and confidence.

> Without a doubt, the arts/poem activity is one they truly enjoy. While they are uncertain about their ability to be poetic and share in front of the class, I know they enjoy it. It also seems to have a bonding experience between students. We usually learn something very personal about everyone and I believe this helps students become confident in their learning (p.5, journal, Week 5).

> The poem by Robert Frost was read out loud several times and analyzed verse by verse to apply to real-life situations (p.1, journal, Week 4).

At week six of the term, the essay assignment is paper on the meaning of freedom. Students must include references, along with compare and contrast, to the viewpoints from the required weekly readings. The paper must focus on what it means to be a responsible citizen and how to make a positive contribution to society. The scoring rubric for this essay measures the student's ability to demonstrate some critical reflection by writing response to the meaning of freedom and conveying a sense of understanding the world from a cultural and social perspective (course scoring rubric).

Measuring mechanics and formatting with rubrics. Students are required to

apply the American Psychological Association formatting guidelines to all writing assignments. The formatting requirements for any paper are: cover page, page numbers in the upper right corner of each paper and running headers, APA citations and reference page, double-spaced, 1" margins on all sides, and 12 point Times New Roman font (course syllabus). Every rubric has a category for mechanics and formatting. The rubric measures how well a student meets the formatting criteria in addition to the writing mechanics of grammar and punctuation. One strength of all grading rubrics that measure writing mechanics and APA formatting is that students form a habit of incorporating the formatting guidelines in writing assignments because APA format is required throughout the undergraduate program. With this weekly practice of applying APA formatting to all writing assignments, instructors perceived that students were able to make improvements, over time.

> I see gains in student's writing abilities. Are they writing in complete sentences, using proper grammar, typos, APA, etc.? (P5., journal, Week 7).

> I could see from week 1 to week 8 the dynamic difference and overall improvement when comparing their first paper to their final paper (P4. journal, Week 8).

> Most did better with self-reflection than with research paper greatly due to APA formatting (P3. journal, Week 8).

The overall perception that students struggled with APA formatting was reported in the interviews and reflective journals. Instructors agreed that the struggle with APA often interrupted the building of critical thinking concepts.

I believe there is not enough time to properly measure gains in critical thinking in this first class (P5, interview, Week 8).

The majority of class centered on helping the students prepare for their research paper (P1, journal, Week 6).

It is interesting to note that although instructors appear to be promoting critical thinking among their adult students, one instructor suggests ways to change future instruction or assessment.

What is the true outcome of this course?...is it knowing how to research and write a research paper or becoming well versed in critical thinking? I believe in an 8-week class, there is not enough time to devote to both. One, either paper or critical thinking skills, will suffer (P5, interview, Week 8).

The study revealed that class discussions were a primary teaching method to promoting a critical thinking curriculum. However, participants perceived that the critical thinking curriculum was a bit interrupted by the research paper component. The data also observed that 8-weeks was not enough time to deeply delve into critical thinking. The participants perceived that the reflective writing assignments were great at promoting critical thinking, but the research paper assignment may interrupts possible critical thinking gains. Participants perceived the research paper was rushed and there was not enough time to effectively teach APA format and teach knowledge/skills of academic information literacy in the undergraduate capstone course.

Summary

The qualitative case study design was used to examine how university instructors perceive their efforts in promoting critical thinking with adult students. Data were collected through interviews, observations, reflective journals, and content analysis. All data were transcribed by hand and organized using Mircosoft® Word table feature. Triangulation between data collected from interviews, observations, and reflective journals were merged and analyzed for validity. For member checking, parts of the thematic analysis were reviewed by the participants to provide an opportunity for them to comment on the findings. Participants who volunteered for this study all had experience in teaching the Writing and Critical Thinking in the Liberal Arts undergraduate capstone course. This study will result in a professional development workshop for instructors at Midwest University.

Section 3: The Project

Introduction

The project informed by the results of this case study is a professional development training session. Although this project will be called a *professional development workshop* (PD workshop), the workshop is not a 1-day activity; instead, it is a series of activities over a 6-week period. The web-based training program is designed to guide instructors through reflective assignments and discussions specifically framed around the curriculum of the Writing and Critical Thinking in the Liberal Arts capstone course. The target audience for this project includes instructors of the capstone course. However, this project can be adapted to any program that is developed to promote critical thinking and reflective writing. In this PD workshop, instructors will collaborate in discussion forums to support and engage other faculty on ways to promote and assess critical thinking.

The purpose of this project study is to provide a tool for instructors at Midwest University who teach the Writing and Critical Thinking in the Liberal Arts capstone course to develop steps in reflective writing to better promote critical thinking for teaching and learning. Analysis of data from five instructors at MU yielded the three major themes: common practices to promote critical thinking, with learning from the past as one subtheme; challenges to promoting critical thinking, with setting the foundation as a subtheme; and level of importance placed on assessing critical thinking, with measuring writing through rubrics for a subtheme. A professional development workshop (see

Appendix A) was designed from the qualitative data analysis and scholarly literature and provides a framework to encourage positive social change at MU.

The next section details the development, description, and evaluation of the PD workshop. A review of literature to support the design of the professional development workshop is also included.

Description and Goals

The purpose of this PD is to present a training opportunity in order to offer university instructors a resource on how to journey through the process of reflective writing themselves to strengthen their ability to guide students through the practice of reflecting, sharing, and considering other perspectives. The target audience for this workshop is all instructors of Writing and Critical Thinking in the Liberal Arts at Midwest University. To accommodate instructors who teach the capstone course at various MU campus locations, a web-based professional development project was created using Blackboard ™. This PD addresses the need to promote critical thinking by learning from the past through reflective writing. The intention of the PD is to engage other workshop participants in the reflective writing process in an effort to transform teaching and learning for instructors of the Writing and Critical Thinking in the Liberal Arts capstone course. Reflecting, writing, and sharing experiences in the workshop will allow instructors to critically think about their own actions and practices and further model this habit among their students. After completing the workshop, instructors will be able to share personal experiences of the process of reflecting and writing to encourage this among their students. Instructors may further promote reflection through direct

questioning and supportive feedback because they have experienced this process by completing the workshop. Finally, this professional development addresses the use of technology to promote learning communities, teaching strategies, and professional development.

The academic year at MU consists of six 8-week terms. The full professional development workshop will last 6 weeks and will be offered three times during the academic year. For example, all instructors scheduled to teach Writing and Critical Thinking in the Liberal Arts capstone course for the Spring 2 term will be required to register for the 6-week long PD workshop created in Blackboard™. The workshop will be set up within the tools feature of the Blackboard™ course.

All instructors who register for the workshop will have knowledge of and experience teaching the Writing and Critical Thinking in the Liberal Arts capstone course. The goal of the PD workshop is to provide a resource on how the process of reflective writing can promote critical thinking by allowing individuals to reflect on actions, ideas, and assumptions in order to consider alternate ways of thinking and possibly viewing the world from a more critical perspective.

One facilitator will lead the online training session. The facilitator should be formally trained in adult learning theory and have experience teaching the Writing and Critical Thinking capstone course. A minimum of four reflective posts per 6-week session is required from each attendee. Each instructor must post within the first two weeks to ensure that others have a chance to read, respond, and collaborate. There is no length requirement, but posts must reflect and relate to the experience of teaching the

class and address ways to promote critical thinking. The facilitator should read every posting and provide feedback using a supportive tone. The facilitator should also share personal experiences to urge more discussion and encourage deeper reflection through direct questioning with the instructors (e.g., "How has this changed the way you promote critical thinking goals among your students?"). Meanwhile, once during the 6-week session, a 60-minute web conference using Blackboard Collaborate™ Web Conferencing is scheduled to collaborate and share ideas. In addition, the facilitator may schedule a 60-minute instant messaging session using Blackboard Collaborate™ Enterprise Instant Messaging to initiate a learning network in real time. An instructor evaluation survey will be sent out twice during the training session to evaluate the workshop.

The goal of this professional development is to keep instructors informed with a web-based, collaborative learning opportunity by promoting critical thinking with reflective writing to deepen the instructors' understanding for themselves and their practices.

Rationale

Educational institutions offer professional development in an effort to provide opportunities to improve teaching and learning (McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2013). Some have noted that a one-time, short duration PD session may bring about change in practice in teaching and learning but that this change will not endure for a long period of time (Kesson, & Henderson, 2010; Wei et al., 2009). Therefore, instructors desire encouragement and support over a sustained period of time with a professional learning opportunity focused on meeting specific teaching needs and

strategies (Leask, & Younie, 2001). With this in mind, I developed a PD workshop that will enable a cohort of instructors to build a professional learning community via Blackboard™ and Blackboard Collaborate™ during an 8-week term of instruction. The use of technology supports a collaborative learning environment among instructors separated by geographic locations. Technology has changed how individuals communicate and has provided various opportunities for learning. Typically, Midwest University offers several PD options to ensure that faculty are staying current in their fields. One option is to offer a face-to-face workshop at the faculty member's local campus location. The other option provides PD training online, via the university's website portal. This online option allows faculty members across several campus locations to participate in the training. I decided to design a web-based PD workshop in order to foster collaboration among instructors at various campus locations. Offering a web-based workshop will cut travel costs while allowing instructors to participate in real-time collaborative PD.

Review of the Literature

For the literature review, the search strategy included a key word search in a variety of educational databases. The phrases or key words matched the intent of the project. The words searched were *online professional development, online reflective writing, reflective writing workshop, virtual training, critical thinking training, critical thinking workshops, professional development assessment*, and *university instructor training*. These terms were searched through Walden University's online library multisearch databases and the educational databases of the online library of Midwest

University. The review of literature is based on the areas of the PD that instructors who teach the Writing and Critical Thinking capstone course are trained with regard to professional development and promoting critical thinking.

The first subsection focuses on the process of online professional development through the use of web-based training. The two subsequent subsections include the content of the web-based training with foundations for critical thinking and reflective writing.

Web-Based Training

University instructors can benefit from technology training so that they can remain current with the technology trends their students are using (Prensky, 2011). Faculty who are trained to use a combination of teaching methods that include technology encourage active engagement from students and build community among colleagues (Filer, 2010). Professional development is necessary for promoting a sense of community in teaching and learning across the curriculum. However, instructors who teach a heavy course load may find it difficult to attend professional development due to time and energy constraints (Dede, et al., 2009; Fishman, et al., 2013). Therefore, universities that employ instructors across various campus locations may find it difficult to offer professional development opportunities due to budget limits and geographical distance. Technology provides a virtual professional development opportunity to encourage learning communities regardless of location (Leask & Younie, 2011; Ullman, 2010; Walker, Downey, & Sorensen, 2008). Although funding may be tight, universities may still provide quality professional development opportunities.

The quality and sustainability of a 1-day face-to-face workshop have been a concern in education (Wilson, 2013). Although a 1-day, face to face training may appear to be convenient, the concern becomes that a one-time, face to face presentation has been shown to be an inadequate technique to bring about any real change in teaching practices. In contrast, creating a virtual learning experience provides ongoing support and information that can be stored for later use (McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2013). Research suggests that teachers prefer a training opportunity that is meaningful and convenient (Knight, Tait, & Yorke, 2006; McConnell et al., 2013). Given this preference, instructors need more training using technology in order to stay current with trends and various learning modalities (Francis & Jacobsen, 2013). Quality professional development may focus on how well an online training opportunity relates to teaching and best practices. Quality professional development programs can improve teaching effectiveness, but this relies greatly on the leadership and organization within the school in addition to the collaborative skills and shared teaching goals among the teaching faculty (Dede et al., 2009; Hill, Beisiegel, & Jacob, 2013; Porter et al., 2011).

Vu et al. (2014) examined factors that may contribute to the success of an online professional development course. Due to busy teaching schedules, online professional development has become popular in recent years (Dede et al., 2009). Online professional development provides ongoing support that may not be available once a face-to-face session has ended. This ongoing support is especially important for mentoring opportunities and entry-level teachers (Rienties, Brouwer, & Lygo-Baker, 2013; Stes et al., 2012). Other factors that contribute to the success of an online professional

development course rely primarily on the participant. Factors include time management, self-discipline, familiarity with technology, reliability of Internet connection, and ability to cope with a nonstructured learning environment (Vu et al., 2014). Another benefit of online professional development is the opportunity for reflection offered by asynchronous interaction and the means to give voice to an attendee who might otherwise sit silently in a face to face session (Stes et al., 2010). Although significant growth has been observed in classroom practices through both face to face and online professional development, there has been no distinct difference between the two modalities (Fishman et al., 2014; O'Dwyer et al., 2010; Wang, 2010).

Setting the Foundation for Critical Thinking

Some researchers define critical thinking as a set of skills and dispositions consisting of questioning, analyzing, reasoning, and reflecting (Abrami et al., 2008; Alwehaibi, 2012; Brookfield, 1987; Paul & Elder, 2006). Although, critical thinking may be difficult to define (Kowalczyk, Hackworth, & Case-Smith, 2012), the concepts of critical thinking involve noticing or recognizing and evaluating or analyzing assumptions and reflecting on those actions (Smith & Szymanski, 2013). To that end, instructors may encounter difficulty when guiding a student in reflecting and examining experiences. Therefore, instructors should be trained to understand and be sensitive to guiding students through the reflective process (Boman, 2014; Lakshmi, 2014).

Research shows that educators lack adequate knowledge of how to guide students through the process of critical thinking, due in part to the shift in teaching from a teacher-centered to a student-centered approach (Kowalczyk, Hackworth, & Case-Smith, 2012).

When faced with this challenge, the greatest barrier a teacher may face is when a student lacks motivation to engage in active learning. Another barrier a teacher may face when promoting critical thinking is lack of time in the classroom to incorporate critical thinking tasks. Critical thinking is an intentional, active process that requires active engagement from both student and teacher (Mulnix, 2010). Raymond and Profetto-McGrath (2005) listed both strengths and barriers to teaching critical thinking for their study involving nurse educators. Strengths included faculty development, administrative support, and mentorship. Obstacles included lack of time, no support from fellow faculty, and students' negative attitude toward critical thinking teaching methods used in class. The literature supports the idea that educators need support and training to adapt teaching methods that are more student-centered and focus on group discussions, journal writing, and class debates (Cavdar & Doe, 2012; Chaffee, 2014; Mehta & Al-Mahrouqi, 2014). Critical thinking is an important concept in education; however, educators need assistance in developing critical thinking skills and must be open to adapting their current teaching methods to foster the development of critical thinking skills (Kowalczyk et al., 2012).

To set the foundation for critical thinking, Al-Mubaid (2014) emphasized that instructors should be equipped to teach students how to think deeply. In order to teach this particular set of skills, instructors should undergo preparation in this teaching and learning strategy. Instructors can encounter in-depth teaching and learning by being open to sharing experiences and ideas with others (Motte, 2013; Purcell, 2013; Strangfeld, 2013). Teaching and learning become enriched when educators play an active role in

considering the perceptions of others. This was demonstrated through a learning

workshop for educators in Brazil, where Kille, Krain, and Lantis (2008) concluded that

educators perceived the most important parts of the workshop as the experience gained

through engagement and active participation. In addition, several studies concluded that a

training session where participants were actively engaged and could easily implement a

strategy learned from the training into their practice seemed to benefit both educator and

student (Halx & Reybold, 2005; Lim, 2011; Lucas et al., 2013). In offering an online

training session, teaching strategies can be adapted across various locations (Attard,

2012; Holmes, 2013; Richards & Skolits, 2009). In the end, evaluation is an important

element in all training, and instructor feedback is crucial to highlight best practices for

instructors to understand themselves and their practice (Boyd, 2012; Taylor et al., 2012).

Reflective Writing

Teacher reflection has been used to evaluate many areas of teaching, behavior,

classroom practices, and learning outcomes (Purcell, 2013). The work of Dewey (1933)

is considered the first influence on teacher reflection in education. In addition, Schon

(1983) contended that a highly reflective teacher learns continually in a number of ways.

Brookfield (1995) argued that teacher reflection provides insights into effective teaching

practices when the teacher brings several interconnecting concepts that involve teacher

reflection, feedback from students and peers, and relevant research. These

interconnecting concepts allow teachers to uncover assumptions and bias about their

teaching and beliefs that are brought into the classroom (Pascarella, Salisbury, & Blaich,

2011; Purcell, 2013). Reflective writing, whether professional or personal, may help teachers experience greater understanding of themselves and their practice.

Teachers who keep reflective learning journals can lead to new understandings of their practice. This type of self-directed learning has its benefits and its challenges (O'Connell & Dyment, 2011). One may argue that reflective writing slows the pace of learning (Aronson, 2011; Cowan, 2013; Hickson, 2011). However, some believe that although the writing habit can enable writers to view their experience objectively, writing may limit deep thought by being descriptive without necessarily being reflective (Cowan & Cherry, 2012). Once the activity of writing has taken place, the individual must intentionally think about what has been written. The metacognitive activity of reflection challenges the individual to deconstruct what happened and why, by reflecting on alternative outcomes (Kolencik & Hillwig, 2011; Leijen, Valtna, & Leijen, 2011). Therefore, when teachers are trained in this area, they become equipped with knowledge and skills to overcome any challenges students may face with reflecting and writing (Malkki & Lindblom-Ylanne, 2012).

Implementing reflective writing practice into a PD workshop may transform instructors' perceptions about reflective writing and allow instructors to be better prepared to guide students through the writing and reflecting process (Francis & Jacobsen, 2013). Reflective writing coupled with interaction with others through dialogue and questions may prompt fresh thinking and allow individuals to put together their own understand of their experiences (Williams & Grudnoff, 2011). For any sort of transformative learning to happen, instructors must be open to clearly defining critical

thinking and implementing that definition into their practice (Mezirow, 2000). In the meantime, participating in any professional workshop does not guarantee a transfer of learning and teaching. A professional workshop must align with course goals to enable instructors to create meaning and make a connection (Shaha & Ellsworth, 2013).

Langley and Brown (2010) revealed how sharing reflections among a professional learning community can lead instructors to adopt other ideas and adapt those ideas to meet their teaching and learning needs. Instructors who reflect, share, explore, and analyze their teaching experiences can develop a higher order of thinking that ushers in critical thinking abilities (Zhu, 2011). Instructors who keep a reflective journal about their practice help build on acquired knowledge and can adapt this strategy to promote critical thinking skills among their students (Dayaram & Issa, 2012; Lai, 2012).

Implementation

The technology resources needed for this project was the existing online course delivery platform, Blackboard™. With my education and training in adult learning theory and my experience and knowledge of the capstone course, I will facilitate the training session. The implementation of the 6-week training course will be simple. All instructors scheduled to teach the Writing and Critical Thinking in the Liberal Arts capstone course will be required to complete the 6-week professional development workshop. The workshop will be offered three times during the academic year at Midwest University.

Proposal for Implementation and Timetable

The format of the online training course has three sections and nine sub-sections for the six-week session. Within the Blackboard™ classroom, is the *Course Info* section,

there is an *Announcement* sub-section where the facilitator posts announcements and updates. Attendees can view the announcement section but not post there. The second section is the *Course Materials* and in it are five sub-sections such as, *Syllabus*, *Module 1-2-3*, and *Discussions*. *Module 1*, *Module 2* and *Module 3* are where attendees will go for weekly assignments and discussion questions (see Appendix A). Each module has a video clip, reading and discussion question. The third section is the *Resources* and in it are three sub-sections; *Resource Room*; *My Tools*; *Blackboard Tutorial*. *My Tools* is where attendees will go to participate in the synchronous video conference using Blackboard™ Collaborate and the synchronous instant message using Blackboard™ Instant Messaging.

The first training session will be offered the Spring 2 term. Once the instructor accepts the course offer and signs the contract to teach Writing and Critical Thinking in the Liberal Arts capstone course, the instructor will be required to register in the online training session via Blackboard™. An email message will be sent inviting the instructor to participate in the training session. A trained facilitator will use the tools feature within Blackboard™ to create a discussion question. Since I have experience teaching the course, I developed bi-weekly prompts for the facilitator to post in the discussion forum (Appendix A). The facilitator should read each post and provide supportive feedback and share personal experience to encourage more discussion and deeper reflection. In addition, the facilitator should schedule two synchronous sessions. The 1-hour synchronous session will take place during week 4 using Blackboard™ Collaborate Web Conferencing. The second 1-hour synchronous session will take place during week six

using Blackboard™ Collaborate Enterprise Instant Messaging. The two hours of structured synchronous sessions provides an opportunity for attendees to comment, react and build on ideas of each other in real time.

Potential Barriers

Some potential barriers to this PD workshop is that writing about possible problems in teaching practice may not come easy for the attendees and sharing those experiences with others in the cohort may by a challenge. With this in mind, the facilitator should create a safe learning environment to encourage attendees to take risk and openly discuss their experience without fear. Another barrier is that attendees may not be open to alternative perspectives, which could reduce the opportunity for learning. Attendees will be required to attend the training session in addition to teaching the capstone course. Some attendees may be assigned to teach multiple sections within the same term, and meeting the demands of teaching and training may be too much.

Roles and Responsibilities of Student and Others

I will serve as the facilitator. The role of the facilitator is to provide leadership, support and encouragement throughout the training session. The role of the attendees is to actively participate in the online training by posting and responding every two weeks. Each attendee will be asked to interact with other attendees by sharing examples from their experience in teaching the Writing and Critical Thinking in the Liberal Arts capstone course. Attendees will also be required to participate in the two synchronous sessions. The role of the administration will be to support and assess the effectiveness of the workshop.

Project Evaluation

The purpose of an evaluation is to give insight about the effectiveness of the

training (Stake & Munson, 2008). The evaluation of the PD workshop opens avenues for

improvements to strengthen programs and enhance training. Although assessing the PD

workshop is important, it can also be challenging (Emison, 2007). The steps for an

effective assessment of the PD workshop call for reviewing theories and methods and

clearly communicating the results. The process can be simple, ask the right questions to

produce the best feedback with aim of improving programs (Bledsoe & Graham, 2005).

In the meantime, once a program has been planned, implemented and evaluated, the

program should be shared with others (Creswell, 2005).

The evaluation process for workshop should provide a generalize platform for

data, teaching and curriculum (Mills, Durepos, & Wiebe, 2010). The insights from an

assessment may transfer within a program or can generalize across programs with an

understanding that each program is designed to fit a particular culture and context. A

formative evaluation is information typically gathered midway or before the program

ends (Centra, 1993; Dede et al., 2008; Guskey, 2000). The purpose of formative

evaluation is an early assessment to adapt any possible weaknesses in the program and

develop those weaknesses into strengths (Centra, 1993; Dede, et al., 2008; Guskey,

2000). On the other hand, a summative evaluation typically happens at the completion of

an activity (Danielson & McGreal, 2000). A summative evaluation gives insight into the

proficiency of the program at the end, and can be compared to formative feedback to

measure overall improvement (Mathison, 2005; Patton, 1990). In the end, ongoing

evaluation of the workshop through the use of formative and summative assessments has

the potential to improve outcomes for all involved (Brandon & Singh, 2009; Lloso &

Slayton, 2009).

The information gathered from the evaluation will be used to inform instruction.

The project will be evaluated twice during the 6-week training session. The formative

assessment, given at week three, will be to collect feedback to guide improvements (see

Appendix B). This formative feedback is to catch any weaknesses during the session and

turn them into strengths for the ongoing teaching and learning context. The goal of the

summative assessment will be to collect feedback at the end of the training session to

guide future training efforts (see Appendix C). Attendees will be prompted to answer the

questions and the data will go directly to the facilitator. This data will be shared with the

administration and during faculty meetings.

Implications Including Social Change

Local Community

This study hopes to show the perceptions of promoting critical thinking and to

provide a tool for instructors on how to journey through the process of reflective writing.

This tool will guide both instructor and student through the process of learner

transformation to strengthen critical thinking abilities for better understanding in teaching

and learning.

On the local level, the PD workshop can start a conversation among faculty and

administration about how to offer training options for instructors of the capstone course.

Participants of the workshop can improve instruction at Midwest University and effect

positive social change by incorporating instructional strategies using reflective writing to gain a better understanding of themselves and their practice. This practice can transfer to the teaching of the capstone course in order for students to reflect on actions, ideas, and assumptions to consider alternate ways of thinking and possibly view the world from a more critical perspective.

Far-Reaching

In the larger context, the aim for positive social change is not restricted to educational settings. With this in mind, teaching best practices can be highlighted to guide students' ability to think from a more global and critical perspective. Positive social change takes a global approach by offering educators and students the opportunity to become open to alternative perspectives with increased awareness and appreciation for reflecting and writing.

Conclusion

This study could lead to new professional development programs such as a mentoring program where experienced instructors are paired with new instructors. The concept of promoting critical thinking through reflective writing could bring in new ideas into teaching the capstone course. A mentoring program may advance the professional learning community and strengthen teaching and learning outcomes for the undergraduate adult learning program. The online training session can bring about a professional community among instructors who are spread over various campus locations. Continued research and work needs to be done to encourage faculty participation in professional development. In the meantime, feedback on the training session will help improve

continued training using technology. The reflections of this and the study will be

discussed in the next section.

Section 4: Reflections and Conclusions

Introduction

This project study addressed the problem of how university instructors can approach critical thinking goals in a capstone course by completing a PD workshop. The workshop was designed to provide a resource for instructors of the capstone course at Midwest University to reflect on teaching practices to better promote critical thinking in teaching and learning. In the results of the study, three themes emerged: common practices for promoting critical thinking; challenges to promoting critical thinking; and the level of importance placed on assessing critical thinking. Currently, there is no formal training for instructors who teach the Writing and Critical Thinking in the Liberal Arts capstone course on how to develop critical thinking abilities among adult students enrolled in the undergraduate program at Midwest University. Based on the themes, a 6-week PD workshop was designed for faculty who teach the capstone course. In the PD workshop, instructors will journey through various reflective activities and collaborative discussions to gain a better understanding of themselves and their practice, in an effort to better promote critical thinking among their students.

In the following sections, I will discuss the strengths, limitations, development, and evaluation of the project. In addition to my thoughts on how developing this project enabled me to learn about leadership and change, I will present my reflections and my view on myself as a scholar, practitioner, and project developer.

Project Strengths

Several strengths emerged from the development of this workshop. The greatest strength of the program is the capacity for instructors to collaborate with others who teach the same capstone course (Baran & Correia, 2014). Although several instructors at various campus locations teach the same capstone course, the web-based PD workshop can play an important role in building a professional learning community for the university. An online professional development workshop will not only allow interaction among faculty, but also extend the reach of peer mentoring (Haines & Persky, 2014; Lakshmi, 2014). In the past, the university has partnered an experienced instructor with a new instructor for guidance, but only during the new instructor's first teaching assignment. This workshop can provide a community of support for the new instructor beyond a one-term teaching assignment. The use of technology also has the potential to lead to deeper reflections and sharing (Holmes, 2013; Kanuka, 2002). This professional development workshop will fit into the mission of the university for its instructors by providing opportunities for continued learning and growth.

Collaborating with other instructors will allow attendees to reflect on earlier teaching experiences and share those experiences with others teaching the same course. The collaborative learning component is important in enabling the foundation of critical thinking to take shape (Francis & Jacobsen, 2013). It will strengthen the learning and sharing outcomes of the capstone by enabling participants to consider alternate ways of thinking and possibly viewing the world from a more critical perspective.

The third strength of this project is that it creates a platform for instructors to demonstrate reflection in action (Schön, 1983). As instructors become trained to foster the habit of keeping a reflective journal, they will begin the process of becoming more confident practitioners regarding appropriate responses to situations and problem solving, all of which can impact the learning experience for students as they develop critical thinking skills (Blessing & Blessing, 2010; Eberly, 2010). Finally, the ongoing evaluation of the PD workshop will give strength to the effectiveness of the training and may improve teaching and learning outcomes for the Writing and Critical Thinking in the Liberal Arts course.

Recommendations for Remediation of Limitations

The project and project study were supported by scholarly research and concepts, but several challenges and limitations exist. One limitation to the study may be lack of support from the administration (Beaudion et al., 2013). In addition, instructors may be assigned to teach multiple sections during the same term in which they are required to take the training session, leaving little time or interest for the 6-week training. These limitations can be addressed by minimizing instructors' course load for the term in which they are required to take the training. Administrators may have the option to register for the training or at least have access to the online course in order to observe participation and decide on strengths or weaknesses of the PD workshop and the workshop's potential to benefit the university.

Another limitation involves the sample size of the case study. The small sample size might have limited the identified needs, whereas a large number of participants

might have led to more diverse findings (Miles et al., 2013; Yin, 2010). The face-to-face campus used for this study only offered one class section during the early summer term, which made it possible for only one observation to take place. IRB approval happened directly after the Spring 2 term ended and before the early summer term began. Fewer course sections in the summer term led to a smaller number of instructors who taught the capstone course. The intent was to collect data from participants who taught both capstone courses; however, only two sections of the Global Issues in the Liberal Arts capstone course were offered for the Early Summer 2014 term, and both instructors declined to participate in this study. The lack of data from instructors of the Global Issues course was a further limitation to the case study. For a future study, it is recommended that a mixed methods study be conducted to review current professional development practices and the training needs of faculty who teach both capstone courses (Wangensteen et al., 2011).

The participants for this study were only those instructors who taught the first capstone course at Midwest University. Based on this, it is recommended that a survey be sent to all current and past instructors of both Writing and Critical Thinking in the Liberal Arts and Global Issues in the Liberal Arts to see which training methods they perceive as effective in promoting critical thinking among adult students. Surveys may even be sent to students who have completed one or both capstone courses in regard to critical thinking abilities and habits. The results of such a study would benefit the university, the faculty, and the administrators by allowing them to understand which teaching strategies

work and how university instructors perceive best practices for promoting critical thinking (Weinstein et al., 2010; Xiang & Kalman, 2012).

Scholarship

In considering ideas for this project, I was drawn to the concept of critical thinking and the theory of reflective writing on a personal and a professional level, having practiced reflective journal writing for more than 20 years and having recently guided students through the process of strengthening skills in reflective and critical thinking in the Writing and Critical Thinking capstone course. Once the case study was underway, it was a tremendous amount of work to streamline the ideas for a cohesive project. The volume of literature concerning critical thinking and the various definitions and approaches for promoting critical thinking were overwhelming at first; however, through the process of deeper exploration of material about the topic, I became more focused and developed an understanding of the concept.

One of my primary responsibilities as a scholar and researcher was to review and analyze large amounts of peer-reviewed material to provide depth and detail to the case study. Reviewing all the scholarly material on critical thinking enhanced my understanding of the importance of adult learning theory and prepared me to understand how some of my assumptions and ideas might have been transformed as a scholar and practitioner (Brookfield, 2010; Knowles, 1984; Knowles, Holton, & Swanson, 2005; Mezirow, 1980; Nosich, 2009).

Project Development and Evaluation

As the project started to expand, the process of program development and program evaluation began to require a significant amount of time and organization. Although the workshop developed for this study was a 6-week training session with a series of activities, the program may be modified to fit the needs of instructors and other institutions. This experience has taught me that developing a program involves various moving parts, all working simultaneously. One challenge in developing this project is that some instructors may be tasked to teach multiple sections of the same capstone course in the same term. This teaching burden, coupled with a required 6-week PD workshop, may overload instructors and present a challenge to planning an effective training program. This project meets this challenge with the suggestion that the workshop only be offered twice a year and that instructors only teach one capstone course during the term in which they take the workshop. Developing this professional development workshop gave me firsthand experience of all the work involved in planning a program and provided me the confidence that I will need if I am ever tasked to do so in the future.

Leadership and Change

During the data collection phase, themes emerged to impart understanding of the perceptions of colleagues and how they promote critical thinking among adult students. Reflective journals served as tools to examine and analyze personal ideas, experiences, and questions related to teaching the capstone course. By using a reflective journal, I was able to examine my own assumptions that may have influenced my teaching. Requiring instructors to complete a 6-week training session is a change from the current

professional development offerings and may be met with opposition. This new training requirement may not be easy for some instructors or administrators to accept, yet realizing positive outcomes for teaching and learning may benefit the undergraduate program, and the university could welcome the change.

As a leader, I realized the importance of keeping an open mind by adapting my ideas to fit the needs of the instructors. The reflective journals provided a tool to record personal ideas, questions, and thoughts in an effort to uncover any bias. By keeping a reflective journal, I expanded my self-reflective abilities to examine what was most useful for the project. I hope that in this professional development training session framed around critical thinking and reflective writing, the curriculum will enhance the liberal arts undergraduate program at MU and strengthen learning and growth for all involved.

Analysis of Self as Scholar

A scholar is regarded as someone with academic expertise. A scholar is a person who has vast knowledge and has gone beyond the limitations of a basic education to reach a level of higher education not obtained by the average person. A scholar reads, writes, synthesizes, and analyzes information for clarity, accuracy, and depth. One can argue that there are two types of scholars: the scholar who has obtained knowledge through academia and the scholar who has obtained knowledge through life experience.

When I look back over my life, I see that my great-grandmother, who raised me, provided the closest model of a scholar for me. She was always reading and writing. She thrived in learning new things. She could hold intellectual conversations with anyone who had the privilege of sitting at her dining room table; whether speaking with the

pastor, the neighbor, the insurance salesman, the farmer, or the mail carrier, she had wisdom and knowledge to impart. I always viewed her as a smart and wise woman, and I never thought I would be able to obtain her level of wisdom and knowledge. She passed away in 2002, and what I remember most about her is that she was always seeking new information. Her formal learning stopped at fourth grade, but her informal learning continued until just before she died. On a regular basis, she would complete word-seek and crossword puzzles to keep her mind sharp. Whenever I needed help spelling a word, she was my dictionary. The Holy Bible and *Reader's Digest* were just some of her daily reading companions. When I would complain about school, she would always remind me what a privilege it was to get a "good education" and that knowledge was something no one could take away from me. She was a woman of strong faith and believed that God would always keep His promise. My great-grandmother was the best example of a scholar I had growing up, and although I have yet to have the wisdom and knowledge she had, I have grown a passion for learning and seeking information. I am a scholar, and I hope to give my children an example of what a scholar looks like. I hope to make my great-grandmother proud.

Analysis of Self as Practitioner

As a practitioner, I have always used reflective journals as part of my practice. Adopting this habit in my practice has strengthened my ability to uncover any patterns in my teaching or any challenges faced along the way. This experience allowed me to form the reflective journal questions for this case study. As an instructor of the Writing and Critical Thinking capstone course at MU, I was surprised at the lack of formal training

centered on critical thinking and reflective writing for others who teach the course. By completing the professional development workshop, instructors can increase their level of understanding of the concepts of critical thinking and reflective writing, which can impact their effectiveness in teaching the capstone course.

I learned that there is more literature on how critical thinking can be promoted in a nursing program; however, literature is limited on ways to promote critical thinking within an adult learning liberal arts program. I was able to gain knowledge on strengths and weaknesses in promoting critical thinking from the nursing literature.

Analysis of Self as Project Developer

The Writing and Critical Thinking capstone course was called *Proseminar* until late 2010. When Proseminar underwent revision, a revision committee was formed. The committee was composed of several faculty members with experience teaching the capstone course. I was selected to be a member of this committee. This committee was responsible for examining learning outcomes and how to better align those outcomes with course content and assessment. This experience allowed me to collaborate with colleagues to share ideas and experiences from teaching the capstone course. This experience also provided insight on how to offer students an optimal learning experience through clear instruction and regular feedback. This experience carried into the development of the training session.

An effective project developer understands the significance of designing a project to meet the needs of the attendees. Meeting the needs of attendees does not guarantee a transfer of learning; however, when the workshop aligns with course goals, it may enable

the attendees to construct meaning and make a connection (Shaha & Ellsworth, 2013).

There is always room for improvement, and I welcome any opportunities to learn more

about project development.

The Project's Potential Impact on Social Change

This project study has the potential to impact positive social change by engaging

instructors in writing and reflecting to uncover bias in their teaching to construct meaning

from their experience and highlight best practices. This may result in positive social

change because instructors who complete the workshop may improve their instruction at

MU by incorporating teaching strategies for reflective writing to promote critical thinking

that enable students to better serve their local and global communities. The use of

reflective journals may help instructors gain a better understanding of themselves and

their practice.

Implications, Applications, and Directions for Future Research

Research is strenuous, and developing this project did not come without

challenges. After completing this doctoral study, I feel more confident as a scholar,

practitioner, and project developer. Reflecting on this educational journey has allowed

me to see various sides of teaching and learning and appreciate my ability to move

forward despite obstacles. This process has allowed me to understand that advancing my

learning has many benefits. I have learned that self-motivation, discipline, and

determination are only a few characteristics that helped me progress. My faith kept me

moving when I would have otherwise remained stagnant. I would not have been able to

meet any of the demands of this doctoral project without prayer.

Looking back, although my topic was somewhat complex, it was the right topic for me and I became more certain of this as I progressed. The implications of this project study can go beyond the boundaries of an educational setting to promote critical thinking in various sectors. Future research on this topic and the role reflective writing can play in promoting critical thinking can influence society by guiding individuals to share experiences to become open to other perspectives to learn from diverse viewpoints. Additionally, future research could include a larger scale study to examine the perceptions of students who have completed the capstone course to understand possible long term effects of reflective writing to promote critical thinking. The results of such a study may build on the workshop already developed.

Conclusion

A professional development workshop was created that focused on instructors strengthening their ability to promote critical thinking through various reflective activities and deep discussions about their teaching experience. The workshop was designed to meet the needs of a cohort that teach an undergraduate capstone course with a 6-week online professional development workshop.

This project study has examined the perceptions of how university instructors promote critical thinking among adult students. In the case study results, it was uncovered that instructors perceived the challenge to promoting critical thinking was due, in part, to time constraints of teaching students to think more critically while also meeting the demands of APA formatting and writing mechanics. Other results that emerged from the project study include how learning from the past through reflective writing and deep

discussion can be the most common practices to build critical thinking skills among students. The strengths of the case study are the far reaching impacts of a web based training format where attendees can reflect and share among a cohort to promote deeper thinking and build a professional learning community across various campus locations. The strengths of this case study may connect to the development of other programs such as a mentoring program where experienced instructors collaborate with new instructors for an extended period of time to promote teaching and learning.

On the other side, a limitation to the case study was that instructors might be assigned to teach multiple courses during the same term they were required to complete the 6-week workshop. The course overload and demands of the training may interfere with teaching and learning outcomes of the PD workshop. This limitation might be addressed by minimizing the instructor's course load for the term they are required to take the training.

Although the development of this project study has presented challenges, the PD workshop provides a platform for instructors to share ideas and consider the ideas of others who teach the capstone course. As a college instructor, it is important to have a collaborative and supportive environment to discuss best practices and receive feedback to promote deeper thinking.

As a scholar, practitioner, and project developer, I have faced many challenges in reaching my goals, but the benefits have outweighed any obstacle. This process has enabled me to understand the proper steps required to conduct scholarly research and to

support literature with credible peer-reviewed sources to advance my own learning to a new level.

Finally, the findings of this study highlighted the importance of reflective writing as a method to promote critical thinking. One value of this study was that it demonstrated the need for deep discussions and probing questions as an approach to developing critical thinking skills. Critical thinking involves the ability to collaborate and cooperate with others and consider other perspectives. The curriculum of this project presented activities for instructors to complete to demonstrate how critical thinking may be encouraged in the classroom. As instructors fostered deeper thinking by collaborating with a cohort of other instructors who attended the PD workshop, at its completion, instructors may endorse this same technique among their students. When this teaching technique is applied, collaborative learning, reflective writing and deep thinking might possibly influence students to think from a more critical and global perspective.

The practice of collaborating with other students in a formal setting raised my level of thinking. Undergraduate school provided a platform for me to evaluate and analyze information on a higher level. The act of reflecting and writing about experiences began the groundwork for critical thinking abilities to develop on a deeper level. Graduate school further cultivated my love for learning and applying critical thinking skills, as I began to understand the value of reflecting and evaluating scholarly information for clarity, accuracy and depth. Furthermore, becoming a member of a professional organization encouraged my ability to demonstrate leadership among the adult education community.

In the meantime, my experience as a student and now as an instructor, has allowed me to facilitate students through the process of reflective writing and encourage critical thinking with authenticity because of my knowledge, skills and research. The driving force behind this doctoral study was my passion for reflective writing and its connection to critical thinking. As a university instructor, I have applied reflective journals to my teaching practice to strengthen my ability to reflect and make informed decisions and model this habit among my students. This case study has the potential to influence other educators to promote critical thinking through reflective writing to enhance work processes, build collaborative learning communities and increase higher order thinking among students.

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Appendix A: Writing and Critical Thinking Workshop (WCT)

Welcome to WCT Professional Development Workshop!

This 6-week workshop session has been specifically developed to walk you through the process of reflective writing. The purpose of this workshop is to provide strategies for instructors who teach the Writing and Critical Thinking in the Liberal Arts capstone course to better promote critical thinking for teaching and learning. You will have the opportunity to share your experience in teaching WCTLA and build on that knowledge by learning from other's experience and creativity. You will explore some readings and videos from the capstone course in an effort to go more in-depth and give a fresh perspective of what students encounter when they take the class.

In short, the purpose of this workshop is to strengthen your ability to guide students through the process of reflective writing to promote critical thinking.

Let's get started!

Note: This is a 6-week training session, consisting of 3 modules. A minimum of four reflective posts is required from each attendee. There is no length requirement, but posts must be reflective and in some way relate to the experience of teaching the Writing and Critical Thinking capstone course. A 60-minute videoconference will take place in Module 2, while 60-minute instant message session will take place in Module 3. You will have the opportunity to provide feedback twice during the 6-week session.

Welcome to Module 1! [Week1 & Week 2]

As an instructor of the Writing and Critical Thinking in the Liberal Arts capstone course,

you have to responsibility to guide students through the process of self-exploration with

reflective activities within a liberal arts breadth of knowledge. To encourage a mutual

teaching-learning environment for student and instructor, this workshop has been

designed for you to journey through some of the reflective assignments to strengthen

your ability to promote critical thinking among your students. I am certain the knowledge

you take away from this training workshop will enhance your teaching practices and

benefit the students in which you instructor.

Week 1 Overview:
Within this training workshop we will discuss ways you are already promoting critical
thinking, and some new ways to strengthen critical thinking through analyzing, reasoning
and reflecting. The goal of this course is to interact with activities and colleagues to
enhance teaching practices. Please review all pages of this lesson, participate in
discussions, download articles and watch videos (as applicable).

Discussion Participation:
Submit an initial response to each discussion (D1.A; D1.B) prompt provided each week.
The initial response should be 1 – 2 paragraphs in length and much be posted by
midnight, Central Time by Wednesday of each week. In your post you are encouraged to
show evidence of critical thinking as it applies to the question and use examples. Proper
punctuation, grammar and correct spelling are expected.

Please reply to at least two different colleagues per prompt. Your replies should build on
the concept discussion and promote further discussion.

Review the weekly discussions, readings and videos provided and apply any concepts to
your responses.

D1.A: Develop a short list, 3-5 words, ideas, or concepts that best define critical thinking.

- Write a detailed example of at least one word, idea or concept from the list. What does critical thinking look like? How has a student demonstrated this in your class? How did you know it was critical thinking?

Post on the discussion board, no later than midnight/Wednesday (Wk 1).

Respond to at least two colleagues no later than midnight/Sunday (Wk 2).

D1.B: It is week 1 in the term, students are asked to work through an informal learning assessment and reflect on the strengths of their learning style. Next, students must reflect on the results of the learning assessment and complete a learning autobiography essay. The essay must focus on formal and informal educational experiences and how those experiences relate to their current journey to college. The essay must follow APA formatting guidelines.

Scenario: Jo is in your course and submits an essay that covers the material. Her paper uses section headings but under each heading is only one paragraph. She gives the score from her learning assessment in her paper, but fails to supply examples, details or make connections. The student supplies general answers to the guiding questions with little personal experiences or insight into the subject matter. There are some problems with APA formatting and a few spelling and/or grammar errors. What feedback would you give this assignment and how would you try to promote deeper reflection and writing with Jo?

Video: "Thinking Critically about Critical Thinking in the Classroom"
http://youtu.be/fDSA2lbqi3U

Reading: Shim, W., & Walczak, K. (2012). The Impact of Faculty Teaching Practices on the Development of Students' Critical Thinking Skills. *International Journal Of Teaching And Learning In Higher Education*, *24*(1), 16-30.

Review the weekly discussions, readings and videos provided and apply any concepts to your responses.

Welcome to Module 2! [Week 3 & Week 4]
What is art? How can we view our experiences from a creative, artistic lens? A large

amount of the content in the Writing and Critical Thinking in the Liberal Arts course

guides students to reflect and write about personal experiences to perhaps view the

experience differently. If you were to examine parts of your life, as it relates to teaching,

from a creative lens, what kind of picture would you paint? What type of poem or song

would you write?

Week 2 Overview:
Discuss the art/expression and social/civic breadth areas, collaborate and provide
examples. A videoconference is scheduled for this module and you will have a chance to
provide feedback in a formative evaluation. Please review all pages of this lesson,
participate in discussions, download articles and watch videos (as applicable).

Discussion Participation:
Submit an initial response to each discussion (D2.A; D2.B) prompt provided each week.
The initial response should be 1 – 2 paragraphs in length and much be posted by
midnight, Central Time by Wednesday of each week. In your post you are encouraged to
show evidence of critical thinking as it applies to the question and use examples. Proper
punctuation, grammar and correct spelling are expected.

Please reply to at least two different colleagues per prompt. Your replies should build on
the concept discussion and promote further discussion.

Review the weekly discussions, readings and videos provided and apply any concepts to
your responses.

D2.A: Develop and autobiographical poem by supplying the missing information.

I am (first name)

Son/Daughter of _____

Who needs _____, _____, _____

Who loves _____, _____, _____

Who sees _____, _____, _____

Who hates _____, _____, _____

Who fears _____, _____, _____

Who dreams of _____, _____, _____

Who has found teaching to be _____

Resident of _____

(last name)

Post on the discussion board, no later than midnight/Wednesday (Wk 3).

Respond to at least two colleagues no later than midnight/Sunday (Wk. 4).

D2.B: Jay is in your online course and participates in the weekly discussion. His posts are substantive in length, 1-2 paragraphs, and demonstrates some critical reflection in his writing. However, during the social/civic discussion, his post is extremely harsh and written in all caps. He uses the term 'idiot' to describe a past president and uses foul language to describe the current president. Based on Jay's previous discussion participation and assignments, you know he is capable of scholarly work. Discuss what you would do in the discussion forum and how you would respond to Jay.

Video: Maya Angelou – "Still I Rise" http://youtu.be/vXCHKWFmU2s

Readings: What is Art? (Excerpts from Tolstoy)
http://www.csulb.edu/~jvancamp/361r14.html

Stucker, D., & Bozuwa, J. (2012). The Art of Sustainability: Creative Expression as a Tool for Social Change. *Reflections*, *12*(2), 45-54

Review the weekly discussions, readings and videos provided and apply any concepts to your responses.

***Video Conference Session** (*prompted questions for the facilitator to get the video conference conversation started*)

Think back to the list you created in Module 1 and compare that information to the video and readings on critical thinking.

- Describe how you implemented one of the critical thinking concepts into your class this week.

- What challenges did you face?

- How did you overcome these challenges?

- What creative expression do you bring to the classroom?

****Formative Evaluation**** (see Appendix B)

Welcome to Module 3! [Week 5 & Week 6]

Your final module of this training course! ☺

It has been said that the unexamined life is not worth living. For the purpose of this

training, let's adapt this concept to say, an unexamined teaching philosophy is not worth

teaching. In this final module, take a closer look at your teaching practices to better

uncover what drives your teaching methods and to recognize and analyze these values in

a reflective and even creative way.

Week 3 Overview:
Discuss the value/meaning breadth area, collaborate and provide examples. An instant
message session is scheduled for this module and you will have a chance to provide
feedback in a summative evaluation. Please review all pages of this lesson, participate in
discussions, download articles and watch videos (as applicable).

Discussion Participation:
Submit an initial response to each discussion (D3.A; D3.B) prompt provided each week.
The initial response should be 1 – 2 paragraphs in length and much be posted by
midnight, Central Time by Wednesday of each week. In your post you are encouraged to
show evidence of critical thinking as it applies to the question and use examples. Proper
punctuation, grammar and correct spelling are expected.

Please reply to at least two different colleagues per prompt. Your replies should build on
the concept discussion and promote further discussion.

Review the weekly discussions, readings and videos provided and apply any concepts to
your responses.

D3.A: Describe your teaching philosophy by answering the following:

- At this point in your career, what gives your teaching meaning and purpose?

- What beliefs, values, and principles guide your teaching of the WCTLA capstone

  course?

- What teaching method do you rely on frequently?

Post on the discussion board, no later than midnight/Wednesday (Wk 5).

Respond to at least two colleagues no later than midnight/Sunday (Wk. 6).

D3.B: Jen and Jan are in your class. They sit beside each other and often hold side conversations during class discussions. The class seems annoyed with Jen and Jan. When you ask Jen to contribute to the class discussion she offers her views on the topic, but Jan giggles at Jen's response. You notice that Jen has a lot to offer but appears to let Jan's reaction stop her from participating. How do you keep the class discussion on track and motivate Jen and Jan to engage in the class discussion and not be a class distraction.

Video: "My Teaching Philosophy": http://youtu.be/BNJYfhaZue0

Readings:

Jenkins, C. (2011). Authenticity through Reflexivity: Connecting Teaching Philosophy and Practice. *Australian Journal Of Adult Learning*, *51*72-89.

Aaronson, L. (2006). Make a gratitude adjustment: feeling thankful is one key to happiness. *Psychology Today*, *39*(2), 60-61.

Patkin, T. (2014). Happy Thanks-living. *Personal Excellence*, *19*(2), 26-27.

*Instant Messaging Session (*prompted questions for the facilitator to get the*

conversation started)

- How do you, as a teacher, create an engaging / enriching environment?

- What specific activities or exercises do you use to engage students?

- How do you access student learning and engagement?

Summative Evaluation (see Appendix C)

End of training session…congratulations!

Appendix B: Formative Evaluation

Based on the interaction and information shared, so far, please take a moment to answer

the following questions.

     1. What have you learned from this training that you did not already know?

     2. What will you do differently in the classroom as a result of this training?

     3. How can this training be improved?

     4. What additional professional development training workshop would you like to

see offered in the future?

Appendix C: Summative Evaluation

Evaluation Form

Date: _____   Title of Session: _____

Please complete this form to assess the participants and the overall training experience. For each statement, please indicate if you agree or disagree using a rating scale from 1 to 5. A rating of "1" would mean you strongly **DISAGREE** with the statement, while a rating of "5" would mean that you strongly **AGREE** with the statement. A score of "3" would mean that you **neither agree nor disagree** or have no opinion.

TRAINING ELEMENTS	Disagree				Agree
Attendees					
Participants were respectful to other's views in the discussion board	1	2	3	4	5
Participants asked questions that were relevant and helpful	1	2	3	4	5
Participants seemed engaged in the discussion	1	2	3	4	5
Participants posted and responded on time to promote further discussion	1	2	3	4	5
Facilitator					
The facilitator provided supportive feedback and encouraged participation	1	2	3	4	5
The facilitators asked probing questions that motivated me to reflect and examine my teaching methods	1	2	3	4	5
General Satisfaction					
I was generally satisfied with all aspects of this training session	1	2	3	4	5
I can apply information from this training to my professional setting/classroom	1	2	3	4	5
The web-based training format was easy to use	1	2	3	4	5
As a result of this training, I feel more confident in my ability to promote critical thinking in my classroom	1	2	3	4	5
I learned ways to promote further discussion and critical thinking	1	2	3	4	5
I plan to incorporate reflective journals into my teaching practice	1	2	3	4	5