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Title: Congruence of Teaching Beliefs and Teaching Behaviors in Adult Educators

Abstract approved:

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The purpose of this study was to determine the congruency between the teaching beliefs and the teaching behaviors of adult educators as well as the factors that may affect this congruency. A qualitative study was conducted using seven adult educators. The participants were interviewed, observed, and then interviewed again. The study found that six out of the seven participants had at least one incongruence between their behaviors and beliefs. These incongruities fell into one of three categories. These categories included their beliefs and behaviors in regards to instructional strategies and methods that they used, how they interacted with their learners, and the role of the adult educator. Also, eight factors that affected the participants' congruency were identified. Implications for future research and practice are also discussed.

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Congruence of Teaching Beliefs and Teaching Behaviors in Adult Educators

by Benjamin M. Howe

A THESIS

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Master of Science thesis of Benjamin M. Howe presented on April 4, 2011.		
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Benjamin M. Howe, Author

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Congruence of Teaching Beliefs and Teaching Behaviors in Adult Educators

CHAPTER ONE: INTRODUCTION

Regardless of the content that is taught and the environment in which the teaching-learning interaction occurs – academic, business, government or nonprofit, every adult educator has his or her own teaching style. Teaching styles can vary greatly from teacher to teacher and are very personal in nature as they reflect deeplyheld beliefs and philosophies of the teacher.

There is a plethora of definitions for teaching style. According to Galbraith (2004), teaching style is "the overall characteristics, attitudes, traits, and qualities that a teacher displays in the teaching and learning encounter" (p. 6). Galbraith also discussed in his book five knowledge areas that are essential in the development of a teaching style; these areas include knowledge of principles of practice, knowledge of self, knowledge of learners, knowledge of methods, and knowledge of content. Conti (2004) referred to teaching style as "the distinct qualities displayed by a teacher that are persistent from situation to situation regardless of the content" (pp. 76-77).

For the purpose of this study, the researcher chose to utilize the definition of teaching style articulated by Heimlich and Norland (2002). These authors defined teaching style as "the congruence between an educator's teaching behaviors and teaching beliefs" (p. 17). In other words, teaching style is a result of what teachers do in the classroom and how those actions and practices align with their teaching beliefs.

The intention for having this definition serve as the framework for understanding teaching style is to obtain an accurate depiction of teaching style. The author believes that this definition is holistic and more accurately portrays the complexity of teaching style. Heimlich and Norland's (2002) definition helps paint more of the whole picture of teaching style by focusing equally on both what a teacher believes and what a teacher actually does.

The purpose of studying teaching style is "for individual educators to understand better what they believe and how those beliefs can be congruent with their teaching behaviors in order to improve the opportunity for learning by students or participants in programs" (Heimlich & Norland, 2002, p. 20). It is suggested that the closer in alignment a teacher's beliefs and behaviors are, the more congruent the style is and thus the more effective the teacher is (Heimlich & Norland, 1994).

Statement of Problem

Definitions of teaching styles, including the one about congruence of beliefs and behaviors, lead to questions such as, "How does an instructor identify his or her teaching style?" and "How does a teacher determine congruency between his or her beliefs and behaviors?"

One of the most common answers is to use various instruments that have been developed to assess the beliefs, philosophies, and behaviors of teachers. These include Conti's (2004) Principles of Adult Learning Scales and Zinn's (2004) Philosophy of Adult Education Inventory. Even in the training industry, there are assessments that training professionals can take to determine their training styles; three of these include

Lawson's (2009) Instructional Styles Diagnosis Inventory, Biech's (2004) Training Styles Assessment, and Brostrom's (1979) Training Styles Inventory. Another proposed method for an adult educator to identify his or her teaching style is for that person to write a philosophy of teaching (Hiemstra, 1998). A philosophy of teaching encapsulates a teacher's beliefs, attitudes, goals, and behaviors regarding the teaching-learning interaction.

When referring to these instruments and approaches, it is important to note that they are all *self*-assessments, and therefore, all results are from self-reported data. These instruments only ask for teachers and trainers to reflect on how they think they behave and act in a learning environment. Philosophies of teaching also have limitations; they ask teachers to articulate their beliefs about teaching and how they think they behave or will behave in the learning environment.

With this in mind, it is helpful to reflect on the works of Argyris and Schön (1974). They believed that people have mental maps of how they behave and act in situations, a theory of action. There are two different theories of action: espoused theory and theory-in-use. An espoused theory is "the words we use to convey what we do or what we would like others to think we do" (Smith, 2001, Theories of Action section, para. 2). A theory-in-use is what an individual actually does. Therefore, it is possible that teaching styles instruments and philosophies of teaching only assess the espoused theories of beliefs and behaviors and not the actual theories-in-use. Zinn

(2004) believed that:

An awareness of discrepancies between espoused theories (or values, beliefs, philosophy) and theories-in-use (or beliefs, values, philosophy as evidenced by behavior) may prompt examination of both what one says one values, and what one actually does. (p. 44)

These discrepancies are the incongruities that Heimlich and Norland (2002) discussed between teaching beliefs and teaching behaviors. Therefore, it is important when studying style not to neglect observing teachers' theories-in-use.

Purpose of Study and Research Questions

The purpose of this study was to analyze the teaching styles of the participants by determining to what extent the teaching beliefs they held were congruent with their behaviors while teaching or training. Also, this study aimed to identify possible factors that may facilitate or hinder congruency.

The research questions that guided this study are:

- 1. To what extent do the teaching behaviors align with the teaching beliefs of the study population?
- 2. If there is alignment or congruence, why? If there is not, why?

Significance of Study

In order for teachers of adults to be effective as practitioners, more research needs to be conducted to examine if and to what degree do the behaviors that teachers exhibit in the teaching-learning interaction align with their beliefs about teaching. This study is significant, because it can provide assistance to educators, and it can contribute to the literature.

The results in this study will be used to help adult educators in the development of their teaching styles. This study will address the importance of congruence between beliefs and behaviors and will identify possible factors that impede congruency. It will also help educators that are responsible for the development and education of teachers, trainers, professors, and instructors. The information as to the level of congruency and the factors affecting such congruency can be included in the development of these teachers, trainers, professors, and instructors so that greater congruence and improved effectiveness can be achieved.

Finally, this study is significant because little substantive research has been carried out to study the congruence between adult educators' beliefs and their practices in the classroom. Kane, Sandretto, and Heath (2002) noted this in their critical review of research of teaching beliefs and practices of university academics. Of 50 articles that they found on this topic, only nine of these studies actually examined the connections between espoused theories of teaching and teaching practice itself. They later speculated that "research that examines both espoused theories and theories-in-use of university academics as they develop as teachers appear to hold a great deal of potential to shed light on this important but infrequently studied area" (p. 200). The researcher of this study hopes to shed more light on this area with the results of this study.

Terminology

In order to provide clarity, the terminology used by the author of this study is defined below.

Teaching beliefs. The term *teaching beliefs* refers to the beliefs, values, thoughts, axioms, attitudes, philosophies, and espoused theories regarding teaching and learning held by the adult educator.

Teaching behaviors. The term *teaching behaviors* refers to observable behaviors that an adult educator displays in the learning environment. Teaching behaviors could include, but are not limited to, communication patterns with the learners, nonverbal behavior, use of instructional strategies, methods of presenting the content, theories-in-use, etc.

Teaching style. *Teaching style* is defined as the congruence between an educator's teaching behaviors and teaching beliefs (Heimlich & Norland, 2002).

Adult educator. The term *adult educator* refers to any educator that teaches adult learners. This includes university faculty, community college instructors, corporate learning and development trainers, nonprofit trainers, government agencies trainers, and nonformal educators, such as those that instruct at museums, parks, libraries, etc.

Congruence. The term *congruence* is used in this study to denote agreement and equivalence, and is used interchangeably with the term *alignment*.

CHAPTER TWO: LITERATURE REVIEW

The purpose of this study was to learn more about teaching styles of the study participants by exploring their teaching beliefs and then analyzing the teaching behaviors they displayed in their classrooms to see if the behaviors were congruent with their beliefs. Moreover, this study looked to discover reasons for congruence and lack of congruence between the behaviors and the beliefs of the participants. The literature review provided a background on topics of importance to this study. These topics included: (a) a review of studies that examined congruence of teaching beliefs and teaching behaviors and (b) factors that possibly affect congruence of beliefs and behaviors.

For this literature review, several sources of information, including books, professional and scholarly journals, and electronic databases such as Academic Search Premier and Educational Resources Information Center (ERIC) were searched. The key words utilized while searching online catalogues and databases included, (a) teaching styles, (b) teaching beliefs, (c) teaching behaviors, (d) teaching philosophies, (e) training styles, (f) theories of action, (g) espoused theories, and (h) theories-in-use.

There was little research on the topic of congruence between the beliefs and the practices of adult educators. The literature that did exist focused almost entirely on educators at the tertiary level, specifically university professors, lecturers, and instructors. That this literature for tertiary-level instructors was lacking was confirmed by Kane et al. (2002). It was very challenging to find literature on this topic in regards to community college instructors; literature for other adult educators

in business, government, nonformal, and nonprofit learning environments was almost non-existent. The studies analyzed and studied in this literature review were primarily aimed at university instructors; however, the author of the study believes that the implications and findings of the research can be applied generally to other adult educators.

Finally, it is noteworthy to mention that some literature reviewed in this section "assume[s] teachers' practice from reports of teachers' beliefs" (Kane et al., 2002, p. 178). In other words, these studies did not utilize data collection methods to observe the participants' behaviors or practices; instead, they made assumptions of the participants' behaviors based on surveys, interviews, questionnaires, etc. The author of this study has intentionally chosen to include them, because he believes that, even though multiple collection methods were not used, the implications and findings were still relevant and important.

Studies of Congruence of Teaching Beliefs and Behaviors

Research into this topic did not conclusively show if adult educators are congruent or lack congruence between their teaching behaviors and teaching beliefs. After an extensive review, it appeared that studies of this topic were divided. Some studies showed that teachers are consistent with their beliefs and practices; whereas others have shown inconsistencies and lack of congruence.

Studies that found congruence. Reviewed literature that found congruence between teaching beliefs and teaching behaviors included studies by Hativa, Barak, and Simhi (2001); Martin, Prosser, Trigwell, Ramsden, and Benjamin (2000);

Trigwell, Prosser, and Taylor (1994); and Trigwell and Prosser (1996a, 1996b). These will be discussed below.

Hativa et al. (2001) completed a very thorough study of four exemplary university teachers. Each teacher in their study was interviewed twice, once before the semester began and again after the observed instructional unit was completed. Participants were observed and videotaped, and participants were administered an effective-teaching questionnaire. The researchers also interviewed 10 students from each participant's class. Finally, materials given to the students by the participants, such as syllabi and tests, were reviewed. Hativa et al. found that there was a "good, but far from perfect, fit between these teachers' beliefs and knowledge concerning effective strategies and their classroom practice" (p. 725). They reached this conclusion because overall, their participants implemented strategies and practices that were consistent with their beliefs. However, there were a few instances in which the participants did not act in accordance with their beliefs. For example, two participants believed in checking student comprehension by asking sufficient questions. Conversely, students' ratings of these teachers showed that this was not realized in class.

Martin et al. (2000) conducted a study of 26 university teachers to determine how they intended to teach their students about a specific topic, how they actually taught the topic, and how congruent their intentions and practices were. This study was conducted using interviews and two observations of the participants. Martin et al. found that there was "no observed inconsistency between the teachers' intentions and

their practices" (p. 409). For instance, one participant believed that students did not have to be active learners and could just sit in his class and learn. In practice, he used a teacher-focused method of lecture and saw learning as transmitting information to learners. These actions demonstrated consistency between his beliefs and his behaviors. In addition, the authors noted that the focus of the study was not on general teaching orientations held by the teachers, but rather on how they would approach a specific topic or subject.

Trigwell, Prosser, and Taylor (1994) studied 24 chemistry and physics instructors at two universities by utilizing interviews to "explore the intentions associated with the teaching strategies" (p.75) of these educators. The authors had the participants focus on a specific class and not "about how he/she approached his/her teaching in general" (p. 77). The interview transcripts were analyzed to discover the strategies that participants claimed to utilize in their teaching approaches and the participants' rationale and purpose in using the strategies. This study yielded five approaches to teaching.

- Approach A: A teacher-focused strategy with the intention of transmitting information to students;
- Approach B: A teacher-focused strategy with the intention that students acquire the concepts of the discipline;
- Approach C: A teacher/student interaction strategy with the intention that students acquire the concepts of the discipline;

- Approach D: A student-focused strategy aimed at students developing their conception;
- Approach E: A student-focused strategy aimed at students changing their conceptions. (p. 78)

Based upon these approaches, Trigwell et al. found that these instructors were consistent in regards to their intentions and approaches.

Trigwell and Prosser (1996b) created an inventory which "included scales representing the intentions and strategies identified in the first study" (p. 77). This 39-item inventory was then administered to 58 instructors. The results from this inventory were analyzed and were found to be consistent with their previous study. They concluded that the inventory "confirms that the strategy adopted by these teachers matches the intention they have for their teaching" (p. 84).

Trigwell and Prosser (1996a) added to their approaches to teaching by defining six conceptions of teaching and five conceptions of learning based upon the original transcripts of the 24 science teachers. Trigwell and Prosser showed that teachers' conceptions of learning and of teaching were directly related to their approaches to teaching. They discussed that the results:

In general they show that those teachers who conceive of learning as information accumulation to meet external demands also conceive of teaching as transmitting information to students, and approach their teaching in terms of teacher-focused strategies. On the other hand, those teachers who conceive of learning as developing and changing students' conceptions, conceive of teaching in terms of helping students to develop and change their conceptions and approach their teaching in a student-focused way. (1996a, Conceptual and Theoretical Implications section, para. 1)

Once again, this study showed congruence between the participants' conceptions and approaches.

In summary, the literature described above analyzed the teaching beliefs and behaviors of participants and found that the participants demonstrated consistency between beliefs and behaviors.

Studies that found lack of congruence. Literature reviewed that found a lack of congruence between beliefs and behaviors of adult educators included studies by Murray and MacDonald (1997); Taylor, Tisdell, and Gusic (2007); Heimlich and Meyers (1999); and Norton, Richardson, Hartley, Newstead, and Mayes (2005). This work will be discussed in the following paragraphs.

Murray and MacDonald (1997) created an open and closed-ended questionnaire based on the interviews of instructors at a university. This questionnaire was then given to 39 participants; they completed the questionnaire, answering questions based on how they viewed their roles, their students, the purpose of learning, and the purpose of assessments. Only 30 percent (12 participants) maintained consistent views across all categories. The authors commented that the educators in their study expressed "attitudes and beliefs about teaching which are not translated into their teaching strategies and methods" (p. 331).

A study by Taylor et al. (2007) explored the teaching beliefs of medical instructors in a college of medicine. Eleven medical educators were interviewed and observed; they also completed a teaching orientation inventory. The results of the inventory suggested that the participants had more of apprenticeship and

developmental perspectives of teaching, which would equate to building on prior knowledge and experiences of the students. But based on the interviews and the observations, there was "still a strong emphasis on sharing information which suggests a content driven approach" (p. 373). Thus, there appeared to be some inconsistency between the espoused beliefs and the in-class instruction.

Heimlich and Meyers (1999) designed a study to examine the congruence of teaching beliefs and teaching behaviors of 131 nonformal educators at zoos and parks. The authors made use of two surveys; one of these surveys assessed teaching beliefs whereas the other one analyzed teaching behaviors. Heimlich and Meyers concluded that "the dominant methodological practice in report and time on task is not a dominant teaching method for the belief style that had the preponderance of responses [87.3%]" (Conclusions section, para. 2). In other words, the majority of participants indicated that they had a specific belief system; however, when comparing the use of instructional methods that corresponded to this espoused belief system, participants reported that they only used these methods 20.6% of the time.

Norton et al. (2005) utilized an amended questionnaire to investigate teachers' beliefs and intentions at four universities. After analyzing the responses of 638 participants, they confirmed that there were consistencies and inconsistencies between teaching beliefs and teaching behaviors. For inconsistencies, they found "teacher's intentions were more orientated towards knowledge transmission than their beliefs" (p. 563). Additionally, they speculated that their evidence for both consistency and lack

of congruence between teachers' beliefs and intentions was a result of personal characteristics and contextual variables.

In summary, the abovementioned studies indicated that adult educators can have difficulties putting their beliefs into action and did demonstrate some incongruities between their teaching beliefs and teaching behaviors.

Factors That May Affect Congruence

There are many contextual factors that may affect congruence between teaching beliefs and teaching behaviors. These factors include (a) institution and administration constraints, (b) students, (c) the content or discipline, (d) time, (e) teacher development and training, (f) teacher knowledge, (g) teacher awareness and reflection, and (h) teacher effectiveness (see Table 1). Descriptions of these factors appear in the paragraphs below.

Table 1
Factors That May Affect Congruence

Factor	Author(s), Year	
Institution & Administration Constraints	Taylor, Tisdell, & Gusic (2007); Norton, Aiyegbayo, Harrington, Elander, & Reddy (2010); Heimlich & Meyers (1999)	
Students	Samuelowicz & Bain (1992); Trigwell & Prosser (1996b); Murray & MacDonald (1997)	
Content/Discipline	Norton, Richardson, Hartley, Newstead, & Mayes (2005); Neumann, Parry, & Becher (2002)	
Time	Taylor, Tisdell & Gusic (2007)	
Teacher Development & Training	Murray & MacDonald (1997); Hativa, Barak, & Simhi (2001)	
Teacher Knowledge	Heimlich & Meyers (1999)	
Teacher Awareness/Reflection	Heimlich & Meyers (1999); Hativa, Barak, & Simhi (2001)	
Teacher Effectiveness	Hativa, Barak, & Simhi (2001)	

Institution and administration constraints. One common factor that was found in the literature involved the constraints of the institution and administration placed on teachers. These constraints could include expectations of administration and guidelines of the institution (Taylor et al., 2007); these expectations and guidelines could affect teachers' practices and could cause teachers to adopt practices that are contradictory to their teaching beliefs. One participant from a study done by

Norton et al. (2010) illustrated this point by saying, "I think there are some decisions made by management that thwart your attempts to put your beliefs into practice" (p. 352).

Sometimes, institutions and administrations adopt ideological and instructional trends and request that their teachers implement these changes into their classes or even impose them upon the teachers. Heimlich and Meyers (1999) speculated that impositions such as these cause teachers to change their beliefs but not their actual teaching practices, and thus cause teachers to have incongruent beliefs and behaviors. It is also possible that the opposite of this could occur as well- teachers would change their behaviors in the classroom to meet the new guidelines and to be seen as being compliant; however, the teachers never adopted the beliefs and ideologies that go along with the trend.

Students. There are several aspects related to students that may lead to incongruence between beliefs and behaviors; these include (a) academic level of the students, (b) student motivation for taking the class, and (c) the number of students enrolled in the class.

Samuelowicz and Bain (1992) found the academic level of the students, i.e. undergraduate versus postgraduate, and motivation for taking the class, such as the class being a requirement, may "heavily condition a teacher's approach" (p. 109). Trigwell and Prosser (1996b) referred to an unpublished study that they had conducted in which they found that adult educators may use a different teaching approach with first year undergraduate students than they would with graduate students. This may be

because first year undergraduate teaching requires more knowledge transmission than graduate level teaching where typically the approach is more geared toward learning facilitation.

Finally, the number of students enrolled in a class may affect teaching style.

According to Murray and MacDonald (1997), 32 out of 39 teachers who responded to their survey cited that the number of students affected the teaching methods they used. The larger the size of a class may mean that a teacher has to use an instructional method like lecture even if this instructional method does not align with their teaching beliefs.

Content or discipline. What adult educators teach may affect how congruent they are in their beliefs and behaviors. Norton et al. (2005) noted this when they stated that "teachers' intentions represent a compromise between their conceptions of teaching and their academic (...) context" (p. 564).

Neumann, Parry, and Becher (2002) categorized different disciplines under four broad domains. These domains included (a) hard pure, such as physics or chemistry; (b) soft pure, such as history or anthropology; (c) hard applied, such as engineering; and (d) soft applied, such as education and management studies.

Neumann et al. found that teachers in these different domains of disciplines had different beliefs about assessment, curriculum, implicit requirements of students, and the purpose of learning and utilized different teaching methods.

Time. The amount of time a teacher has with students may affect how congruent the teacher's practice is with the teacher's beliefs. It is possible that if

teachers have what they feel is sufficient time with students, they may be more inclined to use instructional methods, strategies, and activities which are more congruent with their beliefs. Taylor et al. (2007) discussed how their study participants believed that time was "the great arbitrator in determining what and how they teach" (p. 373).

In teaching, unplanned events often occur, such as inclement weather, emergencies, discipline issues, technology failures, student absences, etc. These unplanned events may result in a decrease in time available with students; therefore, teachers may have to change the instructional plan and use a different approach than they would want. Taylor et al. (2007) noted unplanned events as a contextual factor that could affect teaching practice.

Teaching development and training. Educators in universities, like many other adult educators, have had little or no formal training or education to prepare them for the role of teacher (Hativa et al., 2001). Teacher preparation programs provide an opportunity for educators to develop their philosophies, beliefs, and values of teaching and to practice incorporating these beliefs into practice. Therefore, it is possible that the less formal education and training an educator receives on teaching philosophy and practices, the more likely there would be inconsistencies between the educator's teaching beliefs and teaching behaviors. Murray and MacDonald (1997) provided an explanation for inconsistencies they found in their study as related to the need for more staff development. In their study, only 49 percent of their participants (19 out of 39) stated that they had developed their skills as a teacher by attending staff

development workshops. This lack of training or education may "lead to fragmented pedagogical knowledge and to unfounded beliefs about what makes teaching effective" (Hativa et al., 2001, p. 700).

Teacher knowledge. In addition to teacher development and training mentioned above, teacher knowledge of instructional methods, strategies, and behaviors may be a factor related to the congruency or incongruity between beliefs and actions. This is to say that teachers may not be able to incorporate behaviors in their classrooms that align with and demonstrate their beliefs, because they lack the knowledge of such behaviors. Heimlich and Meyers (1999) discussed this very factor in their study. They showed that educators "may not have sufficient knowledge of teaching methods to incorporate methods congruent with their beliefs in constraining situations" (Implications section, para. 2).

Teacher awareness and reflection. Teacher awareness and the process of reflection may be essential for teachers to be congruent in belief and in action. Some educators may not understand and be aware of the importance of congruence between their beliefs and their behaviors (Heimlich & Meyers, 1999). Much of congruence in teaching style may come from reflecting on how actions in the learning environment align with teaching philosophies. Based on the literature reviewed in their study, Hativa et al. (2001) described a factor of discrepancy as being related to "the lack of intentional linking of knowledge and experience to action through reflection, practice, and feedback over time" (p. 725).

Teacher effectiveness. Hativa et al. (2001) found in their study that their participants, who were exemplary university teachers, were relatively consistent and that there was a good fit with their beliefs and classroom practices. However, Hativa et al. suggested that "there is much less of such fit for less good teachers" (p.725). This statement would imply that less effective teachers are less congruent.

Conclusion

In sum, the literature reviewed for this study does not definitively show if adult educators are congruent or lack congruence between their teaching beliefs and teaching behaviors. Of the nine studies analyzed, five found congruence, and four found a lack of congruence. This study attempted to contribute to the literature and to assist in answering the question of whether or not adult educators' beliefs and behaviors are congruent.

Eight factors were described that may affect congruence. These factors included (a) institution and administration constraints, (b) students, (c) the content or discipline, (d) time, (e) teacher development and training, (f) teacher knowledge, (g) teacher awareness and reflection, and (h) teacher effectiveness. These factors appeared to be critical to understand in order to improve congruence between beliefs and behaviors. This study further developed and added to the factors affecting congruency.

It is critical to note that of these 9 studies, only three utilized multiple data collection techniques to explore the participants' teaching beliefs and to actually observe the participants' teaching behaviors (Hativa et al., 2001; Martin et al., 2000;

Taylor et al., 2007). In order to ensure if congruency is realized, additional studies should be carried out using different data collection techniques to achieve triangulation of the data. As a result, this study used two interviews and an observation for each participant to analyze congruency between beliefs and behaviors.

CHAPTER THREE: MATERIALS AND METHODS

The aim of this study was to determine the congruency between the beliefs and the behaviors of adult educators and to identify factors that may affect congruency. In order to determine congruency and to identify possible factors, the author of the study conducted a qualitative study that involved interviewing the participants twice to identify their teaching beliefs and then observing them to capture their teaching behaviors. This chapter will discuss: (a) the participants, including how they were recruited and selected; (b) the procedures and instruments used to collect data; (c) the trustworthiness of data; (d) self-disclosure of the researcher; (e) data analysis procedures; and (f) protection of human participants.

Participants

Participant recruitment. This study's sample of participants was selected out of convenience; a convenience sampling is "the process of including whoever happens to be available at the time" (Gay, Mills, & Airasian, 2009, p. 134). All participants were graduates of the Master of Adult Education program at Oregon State University; therefore, the researcher had access to a large number of adult educators. A total of 136 emails were sent to alumni of this master's program to solicit their participation.

Participant selection. Participants were selected based upon two criteria: (a) they had to be an adult educator, such as tertiary-level educators, corporate learning and development trainers, nonprofit trainers, government agencies trainers, or nonformal educators; and (b) they had to agree to be audio recorded during the interviews.

Participant profiles. The participants consisted of seven adult educators. All participants were Caucasian; two were male, and five were female. All participants have taught or trained for at least 10 years. It is also important to note again that all participants had a Master's of Education in Adult Education.

Five participants were community college instructors; these participants taught various courses such as: (a) criminal justice, (b) English as a Second Language, (c) automotive technology, (d) college success, and (e) college transfer planning. One participant, who was also community college instructor, facilitated a time management workshop for her observation. The final participant was employed by the state government and trained on job development skills. Participants' gender and the instructional setting in which they teach are illustrated in Table 2.

Table 2

Participant Profiles

Participant Pseudonym	Gender	Instructional Setting	Philosophy of Adult Education Inventory Score
John	Male	Community College	Behavioral
Martha	Female	Community College	Progressive
Jennifer	Female	Government Agency	Behavioral
Steven	Male	Community College	Behavioral
Kim	Female	Community College	Behavioral
Tammy	Female	Community College	Progressive
Ann	Female	Community College	Behavioral

Data Collection

To achieve triangulation of the findings, several data collection methods were utilized. These data collection methods included: (a) pre- and post-observation interviews; (b) observations; and (c) a philosophy of education self-assessment. These are discussed below.

Participant interviews. Each participant was interviewed twice, and each interview was audio-recorded and transcribed.

Pre-observation interviews. Pre-observation interviews were semistructured, which involved "asking a series of structured questions and then probing more deeply using open-form questions to obtain additional information" (Gall, Gall, & Borg, 2003, p. 240). The pre-observation interview guide contained 11 questions (see Appendix A); these questions were aimed to capture the participants' general beliefs and thoughts about (a) their role as adult educators, (b) the role of the learner, (c) the instructional methods and strategies they most often utilize, (d) how learners learn best, (e) learner participation, (f) learner motivation, (g) planning for a lesson, (h) evaluating the effectiveness of the lesson, and (i) assessment of student learning. In addition to these questions, participants were asked to describe themselves as an adult educator and to give a summary of their most important beliefs, values, and guiding principles about teaching and learning. Additional questions were asked to solicit specific information and to follow up on comments made by the participants.

These interviews lasted an average of 53 minutes, with the range being from 41 minutes to 69 minutes in length. The pre-observation interviews occurred from

seven days to 25 days before the observations were conducted; the average amount of days was 16. The researcher tried to schedule these interviews at least two weeks prior to the observation to help eliminate the possibility of participants intentionally changing their teaching behaviors based upon what was discussed during the interview. However, because of participants' schedules, this was not always feasible.

Post-observation interviews. The post-observation interviews were also semistructured in nature. These questions solicited participants' thoughts and reactions about the learning event observed by the researcher (see Appendix B). The questions inquired about (a) the participants' overall self-evaluation of the class, (b) what their students learned in the class, (c) the effectiveness and the intention behind the teaching methods and strategies used, (d) reflection on what participants' would have done differently or done the same, and (e) how the participants believed their behaviors were or were not congruent with their beliefs. Also, participants were asked about the intentions and reasons behind specific behaviors they displayed during the observation.

These post-observation interviews lasted an average of 34 minutes, with the range being from 23 minutes to 55 minutes in length. These interviews took place on average 13 days after the actual observation, with one interview actually occurring the same day as the observation to one interview taking place 20 days afterwards.

Observations. Observations were conducted to study the actual teaching behaviors of the participants. Two techniques were used in the observations. The first technique is called *anecdotal records*. This is a wide-lens technique in which an

observer makes "brief notes of events as they occur in the classroom" (Acheson & Gall, 2003, 190). During the observations, the researcher made notes of the participants' and the learners' nonverbal and verbal behaviors. Noted behaviors included teacher movement, hand gestures, facial expressions, teacher-learner interactions, words, dialogue between the teacher and learners, learner-to-learner dialogue, structure of the lesson, etc.

The second technique used in this study was *verbal flow*. Verbal flow is simply a technique that focuses on "who the initiators and recipients of the verbal communication are and the kinds of communication in which they engage" (Acheson & Gall, 2003, p. 178). Using this observational technique, the researcher sketched a seating chart with the locations of learners; each learner was represented by a box on the chart. Each time a learner asked a question, answered a question, or made a comment, the researcher recorded this dialogue in the respective learner's box on the chart (see Figure 1 in Chapter 4 for an example). By doing so, the researcher was able to see which learners participated in the lesson and how often they did.

Philosophy of education inventory. To triangulate data, participants were administered the "Philosophy of Adult Education Inventory (PAEI)" (Zinn, 2004). The PAEI is "an assessment tool developed to assist the adult educator to identify his/her personal philosophy of education" (p. 59). The PAEI consists of 15 items; each item has five optional phrases. Adult educators rate each option to the degree that they agreed or disagree with the statement. The end result is that adult educators' philosophies are categorized into one of five philosophies of adult education; these

include: (a) Liberal (Arts) Adult Education; (b) Behavioral Adult Education; (c)

Progressive Adult Education; (d) Humanistic Adult Education; and (e) Radical Adult

Education. The focus of this study was not to analyze and compare the scores of the

PAEI. However, the scores for each participant are listed in Table 2.

Researcher Self-Disclosure

The researcher's experience includes teaching at the secondary and tertiary level as well as training in corporate, nonprofit, and academic settings. The topic of congruency first became evident to him many years ago while teaching. He felt that he was often unable to put his beliefs about teaching into practice. Furthermore, over the years while having discussions with other adult educators and being a student in an adult education graduate program, he noticed that other educators seemed to have the same issue with congruency. Therefore, his experiences and assumptions were the rationale behind choosing this topic as a focus for his thesis. In addition, these personal experiences and assumptions might have biased his expectations about what he would hear and observe with the participants of this study.

Trustworthiness of Data

Trustworthiness of data is an important aspect of any study. Therefore, the researcher used four techniques to ensure the trustworthiness of the data collected in this study. The techniques included: (a) triangulation; (b) member checks; (c) peer/colleague examination; and (d) statement of researcher's experiences, assumptions, and biases. These techniques are suggested by Merriam and Simpson (2000).

Triangulation. To achieve triangulation, multiple data collection methods were used. These included two interviews, an observation, and the Philosophy of Adult Education Inventory.

Member checks. Interviews were audio-recorded and transcribed. These transcriptions were emailed to participants for verification of accuracy. Participants made no changes.

Peer/colleague examination. This technique involves "asking colleagues to examine your data and to comment on the plausibility of the emerging findings" (Merriam & Simpson, 2000, p. 102). This was accomplished during the thesis class in which the researcher was enrolled. Each month the researcher would meet with one fellow student and two professors. During this meeting, this study's data and findings were analyzed and discussed.

Researcher self-disclosure. The researcher disclosed his experiences, assumptions, and biases in the preceding section.

Data Analysis

The data collected from this study was analyzed using a constant comparative method (Gall et al., 2003; Merriam & Simpson, 2000; Maykut & Morehouse, 1994). The researcher first began the process of analysis by focusing on each individual participant's data. The transcriptions were coded. Coding categories surrounding each participant's teaching beliefs emerged. From there, the researcher compared these categories of beliefs to the actual behaviors noted in his observation field notes; by doing so, he was able to notate any examples of congruence or lack of congruence

along with possible factors. Next, the researcher compared individual categories to the entire sample. This enabled the author to find common themes in regards to congruency and factors that affected the participants' congruency.

Protection of Human Participants

The student researcher and the advisor as principal investigator completed the online certification through CITI. All materials and procedures were reviewed and approved by the Oregon State University Institutional Review Board (IRB). The IRB approved procedures were followed throughout the study.

Conclusion

In sum, the researcher searched for answers to the research questions by conducting a qualitative study. This study collected data using two interviews, an observation, and a teaching philosophy self-assessment for each participant.

Trustworthiness of data was achieved through triangulation, member checking, peer review, and self-disclosure of the researcher. Analysis was conducted using a constant comparative method. The Oregon State University IRB procedures for the protection of human participants were followed.

CHAPTER FOUR: RESULTS

This study focused on answering the two research questions: (a) "To what extent do the teaching behaviors align with the teaching beliefs of the study population?" and (b) "If there is alignment or congruency, why? If there is not, why?." First, this study found that although the majority of the participants' beliefs and behaviors were congruent, there was a lack of congruence between some of their beliefs and behaviors. Second, congruency or lack thereof could be a result of a number of contextual variables. These findings will be discussed below. In addition, because this chapter and the following chapter contain direct quotations from participants, all actual names (including participants and their learners) have been changed to pseudonyms.

Also, it is important to note that this study was not designed to analyze and determine if the participants' behaviors were instructionally effective or if their beliefs constituted sound and established educational principles and theories. Instead, the study focused on identifying the participants' beliefs (regardless of what they were), and then analyzing to what extent they were congruent with the observed behaviors.

Table 3 presents some areas of congruence and incongruence as well as the factors that may be related to the level of congruency. The following sections discuss these findings and provide examples.

Table 3

Examples of Congruencies & Incongruities and Factors that Appear to be Related

Congruencies/Incongruities	Factors		
Instructional methods/strategies used	Amount of content; Having a co-facilitator; Time; Number of students; Teacher education; Teacher experience		
Teacher-learner interaction	Amount of content; Having a co-facilitator; Time; Learners' needs and expectations; Teacher education; Teacher experience		
Role of the adult educator	Ability, skills, and knowledge of instructor; Learners' needs and expectations; Teacher education; Teacher experience		

Congruence between Teaching Beliefs and Teaching Behaviors

All participants exhibited, to some extent, alignment between their teaching beliefs and teaching behaviors. There were several examples to illustrate this alignment; three examples will be shared below. Afterwards, possible factors that assisted them in being congruent will be discussed.

One area of congruence involved the instructional methods used. Steven's belief about the importance of questioning and his observed practice provided an example of congruency. Steven stated during the pre-observation interview that using

"lots of questions" was vital for learning and for learner participation. During the hour he was observed, he asked a total of 43 questions. This clearly showed that he put his belief about questioning into practice.

A second area of congruence is that of teacher-learner interaction. One example that illustrated this congruency involved John. When discussing learner participation, John mentioned that he had never called on a student directly to participate in a discussion or to answer a question. When asked about his belief behind this, he stated.

Sometimes I value students who self-initiate more instead of being forced...I always value students who get it, connecting the dots...the self efficacy piece.

During the observation, it was noted that John did not call on students directly. His valuing students who self-initiate was evident in the classroom. One student spoke 23 times (either answering or asking questions); this represented 43% of the verbal communication that occurred between John and his learners. There were 18 total students in the class.

A third area of congruence consisted of the role of the adult educator. Kim discussed during the pre-observation interview how important providing positive reinforcement and praise to her learners was. She further elaborated,

A lot of students don't have belief [in themselves], and their self-efficacy is low. They don't know what that means. They don't know that the more belief you have, the better that you're going to do. I think teaching students to use affirmations or some of that positive thinking, to take the negative language out. As they do that, then they get more motivated. They see these little bits of success along the way, and they say, "I did it. I got that done."

As a result, it was observed that she gave constant positive feedback. She was observed saying comments such as "Great job!" or "That's great!" When asked about why she gave so much positive feedback, she reiterated that it was her belief that students need that positive reinforcement.

There are two possible explanations for the congruency demonstrated in the above examples as well as the numerous others. First, all participants have earned a Master's in Adult Education. Therefore, it is possible that they have more awareness about their beliefs, since they have had to reflect, analyze, and write about them in a philosophy of teaching while in this graduate program. In addition, they have taken classes that focus on instructional strategies and methods; this may have helped them to put their beliefs into practice. In sum, their formal education could have made them more congruent; teacher development and training was found to be a factor of congruency in a study by Hativa et al. (2001).

The second explanation of why they were congruent is due to the years of experience they have as adult educators. During the years, they have had an opportunity to internalize their beliefs, identify behaviors that align with these beliefs, reflect on their beliefs and actions, and practice putting their beliefs into action.

Lack of Congruence between Teaching Beliefs and Teaching Behaviors

Out of the seven participants, six had at least one incongruence between their teaching beliefs and teaching behaviors. More specifically, three participants demonstrated one incongruence, and the other three participants had two belief-behavior incongruities. These incongruities resulted in the misalignment of the

participants' beliefs and behaviors around: (a) instructional strategies/methods; (b) teacher-learner interaction; and (c) the role of the adult educator. These incongruities and the possible factors that caused them will be discussed in further detail below.

Examples of incongruence with instructional strategies/methods. There were five examples of incongruence between the participants' beliefs and behaviors regarding instructional strategies and methods.

Example 1. In the pre-observation interview, John discussed how important it was to give the right amount of information and content to learners. John believed in chunking information for learners instead of "shot-gunning." This participant stated,

Using the metaphor of medical science, it's like a physician, a pharmacist; let's make sure we have the right dosage of what we're giving students so that there's no misunderstanding or miscommunication.

However, directly after the observation, John approached the researcher and talked about how in the lesson, it felt like he was "shot-gunning" information at the learners. Even though the participant believed that it was important to give "the right dosage," he showed lack of congruence with this belief because he gave too much information in the lesson. This incongruence occurred because the participant felt he had a lot of content to cover, and as a result, too much information was given to learners.

Example 2. The second example of lack of congruence in relation to instructional strategies also involved John. This participant espoused the belief that small group activities were valuable for various reasons, such as to accommodate more introverted students and as a way to engage all students. John espoused that he often broke up his lectures by having learners get together and work in small groups.

During the observation, this participant appeared to be congruent with his belief, because he in fact had his students get into small groups. However, during the post-observation interview, the participant discussed how he normally would have facilitated this lesson:

When one is being evaluated, you make sure that you provide a product that is professional, as well as learner-instructor engaging. Instead of just totally lecturing, I went ahead and had that small group activity in the classroom because I knew you were going to be in there. Traditionally in the past, I just lectured that whole piece there because the voluminous amount of content.

Even though the participant believed in the value of small groups and espoused that he often used small groups in class, had the researcher not been there observing, he would have not used this instructional method. The reason for this incongruence is related to the "voluminous amount of content" as well as knowing that he was being observed.

Example 3. Martha believed in using active learning strategies. This participant also asserted that most learners already know much of the information, and that it was her job to pull it out of them using learner-centered methods. She commented:

I think it [the content] is already inside of them. Certainly there are areas where I have expertise and they don't, and I am always perfectly happy to share that, but I want to find out what they've got already because they will relate to it much more quickly if it comes out of their head than if it comes out of my mouth.

During the observation, it was noted that the major instructional strategy utilized was lecture. When asked what she would have done differently, she mentioned that she would have talked less and would have had more activities. Furthermore, Martha

stated, "The way it turned out was not quite the way I would have...done it. I do not tend to lecture. But boy, it's hard to do that when you're in...doing a one to one and half hour workshop."

There were three reasons for lack of congruence for this participant. The first reason was one that she mentioned above- insufficient time to cover the lesson's content. Another reason was the number of students. There were only 10 learners in this training session, and Martha mentioned that it was challenging to use small group, learner-centered activities with such a small number of learners. Finally, during the post-observation interview, it became evident that this participant was not able to utilize the strategies that she typically would have since she was facilitating the workshop with another facilitator. Therefore, co-facilitation may affect how congruent the beliefs and behaviors of adult educators are.

Example 4. When asked about the types of instructional strategies that she most commonly uses, Kim discussed hesitantly that she lectures; however, she gave the caveat that she prefers two-way lectures. She explained:

I use lecture...But encouraging students to participate in lecture-like throw something back to it too, or asking them questions, presenting them some information and forming it into a question and giving it back to them, and let them formulate their response to that. I think it is lecture, but I would prefer to say that it is two-way lecturing. It's not lecture, lecture, lecture-ok, we're done. Everybody go. See you next week. I want some interaction and not lecture.

This participant was passionate about if she was going to use lecture, that there be interaction between her and her learners. However, her behaviors while teaching showed a misalignment with this belief. Kim spent 50 minutes lecturing. During this

time, there were only seven responses or questions provided by her learners. Even though she believed that lecturing should be two-way, this was not observed. When this participant was asked about her use of lecture and if it were two-way, she commented:

I don't know how you can teach people how to use a [software] program and not have a lecture component. So while I like it to be two-way, I don't think that's always the case. When that is not the case, you have to mix it up with more than one thing. If I'd had another half hour, we could have done an assessment...we could have had a discussion about that.

It is interesting to note that when asked about how her lecture was two-way, she responded that two-way lecturing is not always possible. She mentioned that if there cannot be two-way lecture, then other instructional strategies should be utilized. However, she did not do this herself. Kim felt that she did not have sufficient time to use the instructional methods that she would have wanted to cover the content; therefore, the factor of time resulted in her being incongruent.

Example 5. The last and final example of incongruence with instructional strategies and methods was with Tammy. Tammy saw her role as an adult educator as helping provide opportunities for learners to "get the thinking behind the learning." In other words, she believed that she should assist her students in "deeper thinking" about the content. According to the participant, deeper thinking includes higher-level cognitive skills such as synthesis and application. She felt it was important that her students not to just "check off the box" (meaning that they learn the material to get a grade and then move on), but rather use higher-level cognitive skills to really learn the

content. During the observation, however, there were no activities or instructional methods that would have utilized the learners' higher-level cognitive skills.

When this participant was asked what she would have done differently, she said:

I don't know what I would have done, but I would have done something and just made that lesson fuller and more meaningful, but just would have taken that...we would have just taken that deeper.

Furthermore, during the observation, Tammy quickly covered a significant amount of information in a short period of time; it seemed to the researcher that she was trying to simply cram in a topic in the last part of the class. When she was asked about this, she stated, "And so my intention on that one...because it was a lot of information...was more that they just kind of listen and maybe a few things would pop out for them."

These behaviors mentioned above were not congruent with her beliefs about deeper thinking. This incongruence was caused by the lack of sufficient time she had and the amount of the content that needed to be covered.

Examples of incongruence in regards to teacher-learner interaction. There were three examples of incongruence between what the participants said they believed about teacher-learner interaction and their observed behaviors in the classes.

Example 1. Ann mentioned several times during the pre-observation interview the importance of interaction between her and her students. To her, this interaction was important because: (a) it aided in the creation of a safe, friendly learning environment; (b) it helped keep her learners motivated and engaged so they would not "tune out;" and (c) it allowed her to assess informally what they were learning.

However, while analyzing the verbal flow chart completed during the observation as well as analyzing the participant's movements around the classroom (see Figure 1), it was interesting to note that her behaviors were incongruent with her beliefs. Out of 24 students in the class, there were five students (learners 7, 8, 11, 12 and 15 in Figure 1) that had no direct interaction with Ann; they did not ask or answer questions nor did Ann spend individual time with them while she was walking around the room to work with students. These five students represented 21% of the class.

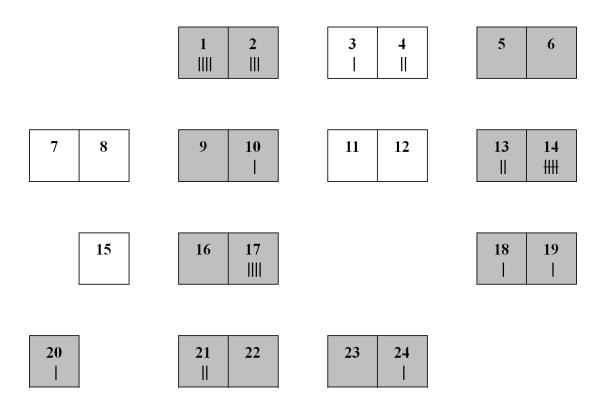


Figure 1. Verbal flow chart documented during the observation of Ann. Boxes and numbers represent learners. Hash marks represent any form of verbal communication between learner and Ann during the observation. The boxes that are shaded represent groups of students that Ann stopped at while moving around the room.

During the post-observation interview, the researcher shared with the participant the verbal flow chart as well as a diagram of where she moved in the class and which students she worked with individually. When asked follow-up questions concerning the lack of teacher-learner interaction for these five students, there was much discussion about why they were not participating and why she did not spend time individually with them. There seemed to one central factor that influenced her decisions with not interacting with these students: the learners' needs and expectations. An example of this was that Ann tried early in the term to call on one of these students. This student gave the impression that she wanted to be left alone. Therefore, this participating instructor did just that. Another example of this factor of learner needs and expectations was based on comments that this participant made. She felt that two of these students were high-performing, and therefore, they did not need extra help so she did not interact with them directly.

Example 2. Another example of incongruence in regards to teacher-learner interaction is illustrated with the beliefs and behaviors of Martha. This participant believed that it was very important to engage and interact with learners and have them to participate actively. However, in the observation, there were three learners in the back of the room that seemed disengaged, and no interaction between them and Martha occurred.

When asked about this, she responded:

I think that I would have engaged the people that managed to stay in the back and disengaged for a lot of it. And of course, you know, if I was by myself...I would have gotten to know them better, because I would have been the one on stage the whole time, and I would have gotten to the point I think where I would have done something about these people in the back.

The reason that this participant did not engage and interact with the learners like she wanted to was because she co-facilitated this workshop with another educator and felt that she was unable to behave as she normally would have by herself.

Example 3. Tammy discussed during the pre-observation interview that interaction with her learners was important, and therefore, such interaction represented one of her teaching beliefs. She felt that, to have successful teacher-learner interaction, it was imperative that she be nonjudgmental and that she create a safe learning environment.

However, there was an incident that occurred during the observation that showed a discrepancy as to how she puts this belief into action. Lucy, a student in her class, forgot to complete an assignment that was due and told this to Tammy during class. Tammy responded by saying, "Ewww," and then looked at Lucy and said, "Oh well." When this was discussed during the post-observation interview, this participant reflected on the incident by saying:

Lucy said...she didn't do something, and my first response was some kind of shame, blame thing. I forgot what it was, but I definitely...my first thing was something shaming, just kind of my gut reaction, and then I saw she started...like she was going to tear up, and I think at some point, I said, "Okay, breathe, you just need to breathe, it's fine, it is what it is, whatever," and I tried to recover from my...and it wasn't who I was, but it was more that there was a lot to get done and that one dark side of me saying, "You couldn't read the directions, hello?"

After discussing this incident more with the participant, it became evident that this participant felt stressed because of lack of sufficient time and because of the amount of content that needed to be cover.

Example of incongruence in regards to the role of the adult educator.

There was one example of incongruence in regards to the role of the adult educator. This example was less obvious than the others, but it was discovered during the analysis of Steven's interviews and observation. At first glance, it appeared that this participant was congruent with his belief about what his role was and subsequently the behaviors that he exhibited that supported that belief. During the pre-observation interview, Steven stated that his role as an adult educator was to "help students learn the skills they need to get their first job." He later elaborated on what he saw his role as when he stated,

So part of my role – even though philosophically I don't agree with it – is to provide the structure and the carrots and sticks and hoops for them [the learners] to jump through so that they can get their grade at the end.

However, as the interview progressed, the participant discussed what he really saw his role as – "to help facilitate students on their own discovery learning process." The participant continued to elaborate on this by explaining:

In an ideal world, they [the learners] would have unlimited time to learn what they need to learn. They would learn at their own pace. They'd choose what they're interested in learning. So their motivation would be up, and they'd work through it. The complexity of that is beyond my abilities as an instructor.

I'm very liberal in my philosophy. Adults are adults. They can and should be completely responsible for their own learning..."Here you go. Here's what you need to learn. You decide how you want to best go about it. Here are a whole bunch of different activities. You choose what you want, and we'll see if we can get there." Philosophically, I would think that would work best. What I found over and over again is students want structure.

After spending time discussing what he truly saw his role as an adult educator to be, it became evident that he had very constructivist beliefs (Merriam, Caffarella, & Baumgartner, 2007).

However, his behaviors in his classroom and the instructional methods and strategies that he used were very behaviorist in nature (Merriam et al., 2007). When asked about his use of lecture. Steven said:

The lesson that I gave was very typical of me. I am aware that, again, the lecture style is theoretically not the most perfect. But in my mind's eye, the most perfect is some kind of a process where they [the learners] are just on their own deciding what's important. They're exploring it [the content]. They're figuring out for themselves how this all works.

Steven's exhibited behaviors in his class were not in alignment with his beliefs about teaching, learning and his role as an adult educator.

There were two possible factors that caused this misalignment. First, this adult educator did not believe that he had the ability, skills, or knowledge to realize a constructivist learning environment. Second, and most interesting, this participant stated that he had changed his behaviors to meet his learners' needs and expectations.

He felt that his students needed structure, grades, lecture, etc. As a result, he met their needs even if it meant being incongruent with his beliefs.

Conclusion

In summary, the findings of this qualitative study were presented. This study found that all participants had, to some extent, alignment between their beliefs and behaviors. However, this study also found that six out of the seven participants lacked congruence in at least one of three categories. These categories included their beliefs and behaviors in regards to instructional strategies and methods that they used, how they interacted with their learners, and the role of the adult educator. Also, eight factors that affected the participants' congruency were discussed.

CHAPTER FIVE: DISCUSSION & CONCLUSION

Even though participants showed congruency between their teaching beliefs and teaching behaviors, incongruities were found. This study supported the results of other studies that found lack of congruence (Murray & MacDonald, 1997; Taylor et al., 2007; Heimlich & Meyers 1999; Norton et al., 2005).

The factors that affected congruency in this study included: (a) the amount of content to be covered; (b) having a co-facilitator; (c) time; (d) number of students; (e) learners' needs and expectations; (f) ability, skills and knowledge of the adult educator; (g) teacher education; and (h) teacher experience. Four of these factors have been found in other similar studies; they include: time (Taylor et al., 2007); number of students (Murray & MacDonald, 1997); teacher knowledge (Heimlich & Meyers, 1999); and teacher development and training (Hativa et al., 2001).

While the last chapter presented examples of congruence and lack thereof and the reasons behind them, it is important to also discuss the one participant that displayed no observed incongruities. Furthermore, this chapter will discuss additional factors, that although were not observed by the researcher, were brought up during the data collection process. In addition, this chapter will discuss limitations of this study and implications for practice and for future study.

The Congruent Participant

Interestingly, there was one participant that did not have any observed incongruities at all between her beliefs and behaviors. During the observation, all of

her behaviors aligned with the beliefs that she discussed in her interviews. The author of this study has three possible explanations for this.

The first explanation was that during the pre-observation interview, Jennifer's responses focused on the actual training event in which she would be observed. In other words, her answers were not broad statements about her general teaching beliefs. Instead, they were very specific and directly related to the training workshop. During the pre-observation interviews, dates for observations had not been set for the majority of the participants; however, this participant knew exactly when and what training she would be observed. Martin et al. (2000) noted that in their study they focused on a specific topic or subject that would be observed and not on general teaching orientations, which may have led to more congruency in their participants. Therefore, it is possible since this participant knew exactly which learning event would be observed, she was able to answer the interview questions more specifically and contextually. This possibility could explain her congruency.

The second explanation for this participant's congruency was that there was one central theme that related to her beliefs, and this theme was learner engagement.

Most of her answers about her beliefs related somehow to learner engagement.

During her observation, it seemed that the majority of her behaviors were driven by the belief of learner engagement. The central focus of learner engagement may have made her beliefs and behaviors more congruent.

Finally, it appeared that this participant was not faced with many of the contextual factors with which other participants had to deal with while teaching. This

participant had more control over the content she delivered. Even though Jennifer described the curriculum of the course as being "canned," she was able to "take out the basics" of the curriculum and "to make it hers." This participant also did not have to deal with the contextual factor of time. She had the freedom to make the duration of the workshop shorter or longer. For example, she mentioned that, if she had a larger number of students, she would be make it a four day workshop instead of three days in length.

Discussion of Factors that May Affect Congruency

As earlier mentioned, there were eight factors that affected congruency in this study. These included: (a) the amount of content to be covered; (b) having a cofacilitator; (c) time; (d) number of students; (e) learners' needs and expectations; (f) ability, skills and knowledge of the adult educator; (g) teacher education; and (h) teacher experience.

In addition to these eight factors that affected congruency, all participants mentioned factors during the interviews that they believed could affect their congruency or actually had affected their congruency in the past. Many of these factors have already been examined as reasons for incongruities in Chapter Four (time, amount of content, number of students, etc.) However, there are four that warrant further discussion. These are: (a) academic level of learners, (b) learner preparation, (c) stress, and (d) disruptive learner behaviors. Once again, it is important to note that these factors were not deemed as reasons for observed incongruence, but rather they

were factors that the participants felt affected their congruency over their years of teaching.

Academic level of learners. Three participants stated that the academic level of learners was a factor that could or has affected their congruency. These participants felt that they could not implement certain instructional strategies or methods that aligned with their beliefs, because their students were at lower academic level. One example of this was with John. John discussed in his interviews that he really believed that it was important for learners to be able to synthesize and apply what they had learned in class. However, he felt that his lower level students could not do this. John stated:

I used to have 'How can you apply this?' [on a term paper]. There was an impasse. People just were not able to take it up to that final stage in Blooms, which was frustrating. Because of the results, I removed it and just said, "What did you learn?" Save the application for a 300 or 400 level class.

As a result, John mostly focuses his teaching now at a "comprehension level." The academic level of students was found to be a factor in studies by Samuelowicz and Bain (1992) and Trigwell and Prosser (1996b);

Learner preparation. Two participants felt that they could not utilize instructional methods and strategies nor engage their learners in the content as they wanted due to lack of preparation for class on the part of the learners. These participants felt that, if students had not prepared by doing their homework and reading assignments, then the instructor had to present the information in different ways.

Adult educator stress. When one participant was asked what she thought affected her congruency, she immediately said, "Stress." This same sentiment was felt by one other participant; this participant commented that because of stress, "I'm not nearly as prepared or calm or smooth as I normally would be for any of my classes." These adult educators felt that they could not be the educators they wanted to be if they were stressed.

Disruptive learner behaviors. One participant discussed how, if a learner displayed disruptive behaviors in class, this affected her congruency. She would change her teaching style to be less engaging and more of a knowledge transmission presentation mode to avoid and curtail the disruptive behavior.

Limitations of the Study

There are three main limitations of this study. The first limitation concerns the sample size of the participants. Since the sample size of this study was small, with only seven participants, it is hard to determine if other adult educators are congruent or incongruent with their beliefs and behaviors similarly to the participants in this study. Also, it is difficult to tell if the factors presented in the findings and discussion chapters are common for other adult educators.

The second limitation is the lack of variability within the sampling; there was lack of variability in the sectors in which participants taught and in the geographical location in which they instructed. As mentioned in the literature review chapter, it was very challenging to find research that had been conducted on this topic in regards to university and community college instructors. Moreover, literature for other adult

educators in business, government, nonformal, and nonprofit learning environments was almost non-existent. While this study did analyze the teaching beliefs and teaching behaviors of six community college instructors and one government trainer, the researcher would have liked to have had participants from nonformal, nonprofit, and corporate education training environments. Furthermore, all participants in this study taught or trained in the state of Oregon.

Finally, while this study did use multiple data collection methods, the researcher would have wanted to do multiple, videotaped observations of the participants. This would have helped paint a more detailed picture of the participants' teaching behaviors and would have given the researcher multiple opportunities to review the video recordings. Following in the footsteps of Hativa et al. (2001), the researcher believes that learner interviews would have been helpful, because the participants' learners could have shared their perspectives about the participants' beliefs and behaviors or how the learners perceive them.

Implications for Future Research

There are several implications from this study for future research. The first implication is that fellow researchers should find ways to overcome the limitations of the study that were mentioned above. Researchers should use a sample size with greater numbers of adult educators and with a greater variability of types of adult educators. It would also be interesting to study congruency in other geographical locations in the United States as well as internationally. Also, researchers should attempt to conduct multiple observations of their participants and survey their

participants' learners. Furthermore, it is suggested that future researchers undertake a non-respondent survey of those who opted out of the study, and then compare the non-respondents to the study's participants. Finally, it is recommended that an instrument be created with multiple dimensions so that one could conduct a multiple regression analysis of the relationship of teacher beliefs to teacher behaviors.

Research that has been conducted to date on this topic is divided as far as if adult educators are congruent with their beliefs and behaviors. Any further research that can provide more answers about the topic would be highly beneficial. Also, there are questions that still remain about the topic of congruency. They include:

- 1. What is the effect of congruency or lack of congruency on learners?
- 2. What are ways that adult educators can better achieve congruency between their beliefs and behaviors?
- What personal characteristics of adult educators affect congruency?
 These are just some suggestions of questions that need additional research.

Implications for Practice

This study has several implications for practice. These implications include:

(a) awareness of factors that may affect congruency, (b) strategies to overcome factors that have a negative influence on congruency, and (c) the need for adult educators to reflect on their own practices. Lastly, implications for community college instructors and administrators are addressed.

The first implication for practice is making factors that may affect congruency known to adult educators. By having an awareness of these contextual factors, adult

educators can be better able to acknowledge them, understand the effects they may have on their congruency, and be more intentional in how they respond and address them.

The second implication for practice is the need for adult educators to be exposed to strategies to overcome these factors. Chances are these factors will always be present for adult education practitioners. It would be helpful for those responsible for the education and training of adult educators to provide instruction and opportunities to practice dealing with the factors mentioned in this study.

The findings from this study should implore all adult educators to carefully examine and identify their beliefs about teaching and to analyze their own teaching behaviors. By reflecting on these beliefs and behaviors, adult educators can continue to work on becoming more congruent.

Finally, this study has implications for community college instructors and administrators. All six of the community college instructors in this study had at least one incongruity between their beliefs and behaviors. Although the author does not wish to infer broad generalizations of community college instructors and their congruency, it is important that community college instructors and administrators be aware of the possibility of such incongruence. Awareness of negative congruency factors and professional development to overcome these would be very beneficial and pertinent.

Conclusion

It was the hope of the researcher of this study to shed more light on the topic of congruency between teaching beliefs and teaching behaviors. This study was designed and implemented to determine whether adult educators have alignment with their practices and beliefs. This study found that six out of the seven participants had at least one incongruity. Furthermore, factors that may affect congruency were discussed.

In closing, the author of this study hopes that there is more awareness among adult educators about this topic. Teaching adult learners really is challenging, rewarding, stressful, and amazing. One participant stated, "Education is like a sitcom. It really is. Because there are moments of melancholy, and then there are moments of euphoria too." The author of this study hopes that all of us, as adult educators, can continue to try and achieve congruency between our beliefs and behaviors during these moments.

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APPENDICES

APPENDIX A

Pre-Observation Interview Guide

- 1. What is your role as an adult educator?
- 2. What is the role of the learner?
- 3. What methods or strategies do you most often use? Why?
- 4. How do learners learn best?
- 5. How do you feel about learner participation? How do you get learners to participate?
- 6. What motivates learners? How do you help in motivating them?
- 7. How do you plan for a lesson?
- 8. How do you evaluate the effectiveness of the lesson?
- 9. How do you know if your students learned what you taught them?
- 10. If you had to describe yourself as an adult educator, what would you say?
- 11. Overall, what are your most important beliefs, values and guiding principles about teaching and learning?

APPENDIX B

Post-Observation Interview Guide

- 1. How do you think the class went?
- 2. Do you feel that your students learned what you wanted them to? How do you know?
- 3. Were the choices of teaching methods or strategies effective? How do you know?
- 4. If you could teach this lesson over again to the same class:
 - a. What would you do differently? Why?
 - b. What would you do the same? Why?
- 5. How do you believe that your behaviors were congruent with your beliefs?
- 6. How do you believe that your behaviors were not congruent with your beliefs?
- 7. Tell me more about ___(specific behavior). Why did you do that?