

Abstract

Title of Dissertation: EXAMINING TEACHER BELIEFS ABOUT DIVERSE STUDENTS THROUGH TRANSFORMATIVE LEARNING: THE COMMON BELIEFS SURVEY AND THE DISORIENTING DILEMMA

DeAnna Duncan Grand, Doctor of Education, 2011

Dissertation directed by: Associate Professor John O'Flahavan
College of Education

As the diversity of America's public school students grows, current and future teachers must be prepared to meet the needs of students who are increasingly different from them ethnically, racially and socio-economically. Research indicates that one of the ways to impact teachers' instructional practices with these and other students is to address problematic teacher beliefs and assumptions around these dimensions. Using the Southern Poverty Law Center's Teaching Diverse Students Initiative's Common Beliefs Survey, this research study explores Mezirow's Transformation Theory as a possibility for addressing these often problematic teacher beliefs. Specifically, the study looks at the research question: What was the nature of Common Beliefs Survey users' disorienting dilemmas (CBS)? The disorienting dilemma is the first step in perspective transformation as outlined in Mezirow's Transformation Theory. The study's participants included teacher educators and graduate and undergraduate education students. Overall, the study affirmed that disorienting dilemmas varied among individuals in terms of intensity; are often emotional in nature; and users' attributes were main contributors to experiencing disorienting dilemmas. The study also indicated that the CBS content helped trigger disorienting dilemmas among most of the study's

participants by providing opportunities to reflect on their beliefs and assumptions and by providing information that challenged existing information or knowledge they had.

EXAMINING TEACHER BELIEFS ABOUT DIVERSE STUDENTS THROUGH
TRANSFORMATIVE LEARNING: THE COMMON BELIEFS SURVEY AND THE
DISORIENTING DILEMMA

By

DeAnna Duncan Grand

Dissertation submitted to the Faculty of the Graduate School of the
University of Maryland, College Park in partial fulfillment
of the requirements for the degree of
Doctor of Education
2011

Advisory Committee:

Associate Professor John O'Flahavan, *Chair*
Assistant Professor Andrew Brantlinger
Associate Professor Robert G. Croninger
Professor *Emeritus* Willis D. Hawley
Associate Professor. Jennifer Turner

©Copyright by

DeAnna Duncan Grand

2011

.

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to Dr. John O’Flahavan, chairperson of my committee. His expertise and availability as an educator and scholar have truly been foundational in the development of this work.

I also want to recognize the insights and encouragement of my committee members: Dr. Andrew Brantlinger, Dr. Robert G. Croninger, Dr. Willis D. Hawley, and Dr. Jennifer Davis Turner. Thank you for challenging me to dig deeper, think more critically, and focus more tightly.

The participation of the students and educators in this study was outstanding. Their willingness to share their experiences and insights was truly remarkable. Without their honesty, candor and trust, this study would not have been possible.

On a personal level, I want to thank Stew, Logan and Mom for their unconditional love, support and patience through this entire process. I wouldn’t have made it without you. I’d also like to thank the rest of my family and friends for their unwavering faith in me. Finally, I’d like to thank my colleagues at The NEA Foundation (Harriet Sanford, President & CEO) and my colleagues in the Washington, DC UMD cohort for their constant encouragement and willingness to share their incredible knowledge and experience throughout the program.

TABLE OF CONTENTS

LIST OF TABLES	iii
LIST OF FIGURES	iv
CHAPTER ONE – INTRODUCTION.....	1
CHAPTER TWO -- LITERATURE REVIEW	21
CHAPTER THREE -- RESEARCH DESIGN AND METHODOLOGY	84
CHAPTER FOUR -- CASE STUDIES AND FINDINGS.....	98
CHAPTER FIVE -- DISCUSSION OF FINDINGS	182
REFERENCES	268

LIST OF TABLES

TABLE 1 -- <i>TEN PHASES OF TRANSFORMATIVE LEARNING</i>	249
TABLE 2 -- <i>REFLECTIVE DISCOURSE CONDITIONS</i>	250
TABLE 3 -- <i>THE INFLUENCES ON MEZIROW'S EARLY TRANSFORMATIVE LEARNING THEORY</i>	251
TABLE 4 -- <i>ALIGNMENT BETWEEN TEN PHASES OF TRANSFORMATIVE LEARNING AND PROPOSED TDSI STEPS</i>	252
TABLE 5 -- <i>DATA SOURCES BY RESEARCH QUESTION</i>	254
TABLE 6 -- <i>MEZIROW'S TRANSFORMATIVE LEARNING PHASES MATCHED WITH KING'S LEARNING ACTIVITIES SURVEY STATEMENTS</i>	255
TABLE 7 – <i>PHASES OF CASE ANALYSIS</i>	256
TABLE 8 – <i>SAMPLE OF INTERVIEW STATEMENTS FOR DILEMMA CATEGORIES</i>	257
TABLE 9– <i>DEMOGRAPHIC TRAITS BY PARTICIPANTS WHO HAD VALIDATED DISORIENTING DILEMMAS AND THOSE WHO DID NOT</i>	258
TABLE 10 -- <i>PARTICIPANT RESPONSES TO LEARNING ACTIVITIES SURVEY</i>	259

LIST OF FIGURES

FIGURE 1 – <i>CONCEPT MAP: THE NATURE AND PERSISTENCE OF TEACHER BELIEFS AND THEIR RELATIONSHIP TO THE TEACHING AND LEARNING PROCESS</i>	262
FIGURE 2 -- <i>MEZIROW'S FRAME OF REFERENCE/MEANING PERSPECTIVE</i>	263
FIGURE 3 -- <i>DIMENSIONS OF INSTRUCTIONAL PRACTICES INFLUENCED BY TEACHER BELIEFS</i>	264
FIGURE 4 -- <i>DIAGRAMMATIC REPRESENTATION OF THE THREE TYPES OF REFLECTION, THEIR RELATED ACTIONS, TRANSFORMATION AND DEPTHS OF CHANGE</i>	265
FIGURE 5 -- <i>TDSI THEORY OF ACTION</i>	266
FIGURE 6 – <i>PARTICIPANT SEGMENTS AND SAMPLING PROCESSES</i>	267

Chapter One – Introduction

Existing research indicates that teachers' beliefs, attitudes and expectations guide their responses towards various students and the beliefs that teachers hold about students often lead to differential treatment and expectations based on students' race/ethnicity (Hinnant, O'Brien, Ghazarian, 2009; Jussim, 1986; Katz, 1991; Pohan & Aguilar, 2001). How do teacher beliefs impact their classroom practices and how do they impact students' opportunities to learn and achieve? One of the primary manifestations of teacher beliefs in the classroom is that of teacher expectancy (Brophy, 1983; Brophy & Good, 1974; Kerman, 1979; McKown & Weinstein, 2008).

In the years since *Brown vs. The Board of Education*, achievement gaps have persisted between students of color and their more affluent White and Asian peers (Banks, 1995; Ladson-Billings, 1995; McKown & Weinstein, 2008; Villegas, 1991). Teacher expectancy has been proposed as a key contributor to that persistent gap (Guerra & Nelson, 2009; McKown & Weinstein, 2008). Research shows that a "host of factors are capable of evoking initial expectations, including physical appearance, race, social class, early performance, ethnicity, sex, speech style and diagnostic label" (Jussim, 1986, p. 431) with teachers having higher expectations of achievement for White and Asian-American students than of their African-American and Latino peers (Brophy, 1983; Cooper & Tom, 1984; Hinnant et al., 2009; McKown & Weinstein, 2008).

According to Pohan & Aguilar (2001), if schools are going to better serve the needs of students who have not traditionally fared well in the system, then "low expectations, negative stereotypes, biases/prejudices and cultural misperceptions that are embodied in teachers' beliefs need to be identified, challenged and reconstructed" (p.

160). One emerging possibility for addressing teacher beliefs is through the Southern Poverty Law Center's Teaching Diverse Students Initiative (TDSi), which has a framework resembling Mezirow's Transformation Theory framework. TDSi is a free online program designed to help educators enhance the learning opportunities, especially the quality of teaching, experienced by students of color. TDSi's focus is on how educators can improve their professional skills, understandings, and dispositions that are especially relevant to the race and ethnicity of their students. One of the key tools of TDSi is the Common Beliefs Survey (retrieved from http://www.tolerance.org/tdsi/about_tdsi on November 10, 2010).

Reconstructing or transforming perspectives is “the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrating perspective; and finally, making choices or otherwise acting upon these new understandings” (Mezirow, 1991, p. 167). This transformation is the product of transformative learning.

The Transformation Theory framework provides for deep questioning of one's beliefs and attitudes that can change personal and professional behaviors. An approach like this seems theoretically promising when it comes to the process of addressing and, when necessary, changing teacher beliefs. However, education and cultural competency are both complex and relation-based issues. So, when considering an online transformative learning program that seeks to change teacher beliefs towards “others,” it is important to understand what program attributes and contextual factors are most

associated with creating a transformative experience and specifically supporting or contributing to a disorienting dilemma.

It is also important to understand what user attributes might contribute to subsequent changes in attitudes and behaviors. This study uses a case study methodology to bring together two areas of inquiry -- teacher beliefs and transformative learning -- by reviewing participant experiences with TDSi's primary tool the Common Beliefs Survey.

Statement of the Problem

By the year 2020, students of color are expected to make up the majority of students in public schools across the country (Mensah, 2009). This anticipated demographic shift in the student populace ups the ante for closing the existing achievement gaps between students of color and their generally more affluent White and Asian-American peers while ensuring that the teaching workforce can effectively teach all students now and in the future (Banks, 1995; Ladson-Billings, 1995; McKown & Weinstein, 2008; Pajares, 1992; Villegas, 1991).

The current reality is that teachers are one of the most important school-based variables in determining the quality of education and the opportunities to learn that students receive, especially at the early ages (Hinnant, et al., 2009). Yet, little is known about what constitutes effective teaching, how to develop effective teachers and how effective teaching actually impacts student achievement (Hinnant et al., 2009). One area of study related to teacher effectiveness that holds promise for addressing the achievement gap is that of teacher beliefs, including the nature and persistence of teacher beliefs about race, ethnicity and class (Guerra & Nelson, 2009; Kagan, 1992).

Teacher Beliefs and Instructional Practices

What are teacher beliefs? According to Pajares (1992), part of the challenge to studying teacher beliefs is “definitional problems, poor conceptualizations, and differing understandings of beliefs and belief structures” (p. 307). For instance, Kagan (1992) defines teacher belief as a “particularly provocative form of personal knowledge that is generally defined as pre- or in-service teachers’ implicit assumptions about students, learning, classrooms, and the subject matter to be taught” (p. 66). Whereas, Alger (2009) defines teacher beliefs as an extension of a (student) teacher’s worldview and are resistant to change. Bandura (1982) states that beliefs mediate knowledge and action (as cited in Pohan & Aguilar, 2001).

Do teachers’ beliefs about race, ethnicity and class impact their instructional practices? If so, how? The concept map in Figure 1 is based on a review of the teacher beliefs literature and illustrates how teachers’ beliefs conceptually connect to their classroom practices, and ultimately student opportunities to learn. As illustrated, this connection is dynamic and susceptible to external mediation and intervention. The connection is also affected to varying degrees by the student-teacher interaction (Brophy, 1983; Cooper & Tom, 1984). For some individuals, beliefs are rigid and for others they are malleable (Pajares, 1992). The pliancy and composition of these beliefs affects the translation of them into classroom practices and often determines the degree to which they can be changed by experience with students and in the professional or external interventions (Alger, 2009; Jussim, 1986). However, as shown in Figure 1 there are a number of factors that can mediate the translation of those beliefs into classroom practice. But, suffice it to say, the degree to which any mediations impact this translation is dependent on the rigidity of a teacher’s beliefs (Pajares, 1992).

As stated earlier, research also shows that a “host of factors are capable of evoking initial expectations, including physical appearance, race, social class, early performance, ethnicity, sex, speech style and diagnostic label” (Jussim, 1986, p. 431) with teachers having higher expectations of achievement for White and Asian-American students than of their African-American and Latino peers (Brophy, 1983; Cooper & Tom, 1984; Hinnant et al., 2009; McKown & Weinstein; 2008). Research also shows that teachers form impressions of students’ abilities quite early in their interaction with them (Brophy & Good, 1974; Hinnant, et al. 2009; Jussim, 1986). These initial expectations may or may not be accurate and they may or may not be rigid. These two dimensions, however, may be points of intervention to help moderate the impact of teachers’ expectations on student outcomes.

According to Martin Haberman (1991), when teachers and schools are engaged in the “pedagogy of poverty,” they are perpetuating the beliefs that children who populate urban classrooms -- and are overwhelmingly poor and minority -- are not really interested in education and are more in need of being controlled and disciplined than of being taught and respected (Brown, 2004; LeCompte, 1978; Rist, 1972; Solomon, Battistich, & Horn, 1996). Teacher beliefs and expectations as discussed above stand at the trailhead of a teacher’s journey with their students. Research shows that it is the foundation upon which their instructional practices are built. As evidence this, Haberman (1991) cites a laundry list of functions that constitute the core practices of urban teachers and the pedagogy of poverty:

- Giving grades
- Giving information
- Asking questions
- Giving directions
- Making assignments
- Monitoring seatwork
- Reviewing assignments
- Giving tests
- Reviewing tests
- Assigning homework
- Reviewing homework
- Settling disputes
- Punishing noncompliance
- Marking papers
- Giving grades (p. 291)

These functions roughly align with the differential treatment discussed above resulting from low teacher expectations of certain students as identified by Proctor (1984) and others (Brophy, 1983; Brophy & Good, 1974; Fuchs, Fuchs & Phillips, 1994). There is nothing wrong with these practices in and of themselves. However, taken together and performed to the systematic exclusion of practices that engage students in rich and authentic learning constitute an impoverished educational experience for students, or a pedagogy of poverty (Haberman, 1991). The literature finds these practices predominating in low-track, non-urban classrooms, including English Language Learner classrooms (Anyon, 1981; Callahan, 2005; Delpit, 1995; McKown & Weinstein, 2008; Oakes, 1992; Page, 1987; Rist, 1972).

Further, the nature of the teaching profession requires teachers to make hundreds of decision every day that affect their students (Kagan, 1992). Many of these decisions are based on teachers' personal beliefs rather than their formal teacher training, or school policies (Pajares, 1992). Therefore, we need to understand the range of beliefs that teachers may have and the extent to which their beliefs influence their classroom decisions and practices (Cooper & Tom, 1984; Pohan & Aguilar, 2001; Vaughta & Castagnob, 2008).

Teachers are also frequently unaware of their beliefs about race, ethnicity and how their beliefs impact their classroom behaviors (Brophy & Good, 1974; Kagan,

1992). If teacher beliefs about these things profoundly affect classroom practices -- especially those that discriminate against and disadvantage certain student populations -- then any effort to change practice must help teachers understand and alter their underlying beliefs (Kagan, 1992; Pohan & Aguilar, 2001; Vaughta & Castagnob, 2008). This is not without significant challenge because in-service and pre-service teachers' beliefs are enormously resistant to change even in the face of solid disconfirming evidence (Kagan, 1992; Pajares, 1992).

Transformative Learning and Changing Teacher Beliefs

If teachers' beliefs are a guiding force in their instructional practices, then changing their practices needs to start with changing their beliefs. Can teacher beliefs, especially those about poor and minority students, be changed? If so, what affects change in these beliefs? Can transformative learning help change teacher beliefs? As just stated, in-service and pre-service teachers' beliefs are enormously resistant to change even in the face of solid disconfirming evidence (Kagan, 1992). However, the basic premise of this study is that changing teacher beliefs is critical to changing practice (Banks, 1995; Gay & Kirkland, 2003; Guerra & Nelson, 2009; Love & Kruger, 2005; Kagan, 1992; Ladson-Billings, 1995; Richardson, Anders, Tidwell, & Lloyd, 1991; Villegas, 1991; Webb, 2001). If problematic teacher beliefs about race, ethnicity and socio-economic status are difficult to identify and change, then what are the options for making those changes (Guerra & Nelson; 2009; Pohan & Aguilar, 2001; Richardson et al., 1991; Vaughta & Castagnob, 2008)? Transformative learning holds promise for affecting these types of changes in teacher attitudes.

In adulthood, informed decisions require not only awareness of the source and context of our knowledge, values, and feelings but also crucial reflection on the validity of their assumptions or premises. “Transformative learning refers to the process by which we transform our taken-for-granted frames of reference (meaning perspectives, habits of mind, mind-sets) to make them more inclusive, discriminating, open, emotionally capable of change, and reflective so that they may generate beliefs and opinions that will prove more true or justified to guide action” (Mezirow 2000, p. 8).

In essence, transformative learning is the process of achieving independent thinking (Merriam, 2004) and seeks to explain the role played by an individual’s acquired frame of reference, which is central to adult learning. Fostering “liberating conditions for making more autonomous and informed choices and developing a sense of self-empowerment is the cardinal goal of adult education” (Mezirow & Associates, 2000, p. 26). The theory has been widely adopted for use in adult education (Cranton, 2006) even though there are many questions about how transformative learning works.

For Mezirow (1991), a developmentally advanced meaning perspective is:

- More inclusive, discriminating, and integrative of experience;
- Based upon full information;
- Free from both internal and external coercion;
- Open to other perspectives and points of view;
- Accepting of others as equal participants in discourse;
- Objective and rational in assessing contending arguments and evidence;
- Critically reflective of presuppositions and their source and evidence; and
- Able to accept an informed and rational consensus as the authority for judging conflicting validity claims (p. 78).

If teachers’ instructional practices are impacted by their beliefs and decision-making is a key element of those practices, then these goals of transformative learning may prove a powerful ally in the effort to changing the instructional practices as they

related to poor and minority students that are undermining the academic success of these students. The Southern Poverty Law Center’s Teaching Diverse Students Initiative (TDSi) is designed to address these problematic beliefs and, therefore, provides an opportunity to study transformative learning, especially the disorienting dilemma.

The Teaching Diverse Students Initiative

Can teacher beliefs be changed through online experiences? This is the question that the Southern Poverty Law Center sought to answer by commissioning the creation of the Teaching Diverse Students Initiative. The initiative is designed to help educators enhance the learning opportunities, especially the quality of teaching, experienced by students of color. This online, research-based Initiative places primary emphasis on practices within teachers' immediate control — instructional practices. Of first and foremost importance to the Initiative, however, is students' academic learning. Within that context, TDSi also emphasizes “strategies that have the potential to reduce bias and prejudice” (retrieved from http://www.tolerance.org/tdsi/about_tdsi November 10, 2010).

The following tools are available through TDSi and can be used together or separately (see Appendix A for descriptions of the tools):

- Understanding the Influence of Race
- Common Beliefs Survey
- Primer on Culturally Responsive Pedagogy
- Case-based Learning Modules
- Teaching Diverse Students School Survey

According to the TDSi website, one or more tools might be used to address the specific goals of a workshop, teacher study group, university course, district professional development program, or individual educator (retrieved from http://www.tolerance.org/tdsi/about_tdsi November 10, 2010). These tools are

accompanied by learning resources that provide knowledge and counsel. Those resources include: video; TDSi-developed text; articles and reports; excerpts from articles and book chapters; learning activities; references for further study. In addition to these resources, TDSi provides a facilitators'/instructors' guide for each tool. These guides focus on how best to use the tools and resources and include substantive discussion of issues being addressed.

TDSi's development process began with surveys of leading researchers and research literature reviews, which led to the identification of priorities about what educators needed to know and be able to do to improve the learning opportunities of students of color. A team of researchers and expert teachers then developed the tools and resources for the site (retrieved from http://www.tolerance.org/tdsi/about_tdsi November 10, 2010). There is an on-going process of review and update in place for the site. When considering elements of Mezirow's Transformative Learning Theory, especially the disorienting dilemma, an initiative such as TDSi provides an opportunity for a close examination of the phenomenon.

That TDSi and the CBS are available online creates an opportunity for reaching larger numbers of educators and related professionals and transforming their perspectives about diverse students. The online format also allows for constant access by users and ongoing updates and improvements by TDSi administrators to keep the content relevant to users and aligned with current research about teaching diverse students.

Purpose of the Study

This dissertation is focused on examining teachers' beliefs about their students who are ethnically, racially and/or socio-economically different from themselves. Using

the transformative learning framework, the study will specifically explore the phenomenon of the disorienting dilemma by studying the experiences of a sample of education students who have used the Common Beliefs Survey (CBS).

The study for this dissertation uses a combination of survey, interview and case study techniques to collect, analyze, and report the data from three different types of respondents: teacher educators; cohorts of the teacher educators' students who experienced the CBS in a facilitated environment; and undergraduate students who experienced the CBS in an unfacilitated environment. The study will also explore variables that may contribute to CBS users' disorienting dilemma. The particular variables in question are CBS content, course facilitation and user attributes.

Study Rationale

Although research shows that there is a pressing need to address potentially problematic beliefs of educators in the effort to improve minority student academic outcomes and close the achievement gaps, there are not a lot of programs in the marketplace, especially free programs, to do so. The Teaching Diverse Students Initiative is unique in this regard. It is both online and free to users. However, that does not absolve it of the need to test its impact on users.

Given the potential of TDSi to transform educators' beliefs as they relate to teaching diverse students and given the importance of the Common Beliefs Survey to that process, it is important to understand CBS users' experiences and the impact the tool has on them. TDSi is a fairly new program, which launched in 2007 and there are not a lot of data about its overall impact on users much less the impact of the CBS. To date, there are over 7,800 registered TDSi users and the program's administrators know very little about

how it is being used and, more importantly, what impact it is having on changing beliefs. This lack of information extends to the impact of the CBS, specifically.

The Common Beliefs Survey is a key tool for TDSi. It provides a gateway for users' to enter into a process of critical reflection about their beliefs and exploration of resources to help transform their perspectives. Theoretically, its purpose aligns with Mezirow's (1991) concept of a disorienting dilemma as the "kick-off" to the process of perspective transformation and transformative learning for in-service and pre-service teachers, teacher educators, counselors, education support professionals and school administrators. So, the CBS provides an opportunity to study the disorienting dilemma, which is an essential first step in the transformative learning process and needs more research to help understand its dimensions and possible triggers. Therefore, this study examines the experiences of previous CBS users as well as those of a group of participants in controlled conditions. The units of analysis for the study are the individual users.

By using the research base for transformative learning, this study provides an opportunity to look closely at a sample of users' encounters with the Common Beliefs Survey to detect and robustly describe disorienting dilemmas. Hence, this study will look at the disorienting dilemma in the context of the Common Beliefs Survey to help advance the research base on transformative learning, along with providing TDSi with feedback on one of its key tools. The data and findings generated through this study will not only add to the body of knowledge about the disorienting dilemma. While the sample of users in this study are by no means representative of past, present or future CBS users,

their individual and collective experiences may also provide TDSi administrators with information about how to make the tool more robust and impactful in this regard.

Through his review of research related to transformative learning, Taylor (2000) identified four general foci that formed the basis of his recommendations for the direction of future research on the phenomenon. They include theoretical comparisons, in-depth component analysis (including the disorienting dilemma), strategies for fostering transformative learning, and the use of alternative methodological designs. As such, this study aligns with at least one of Taylor's research recommendations – in-depth component analysis.

Research Questions

The chain of reasoning used to design this study is as follows:

- A disorienting dilemma is the first step in Transformative Learning.
- TDSi's structure aligns with the theoretical framework for transformative learning. The Common Beliefs Survey (CBS) aligns theoretically with the disorienting dilemma in transformative learning.
- Transformative learning, while an attractive framework for tools/processes to help change problematic teacher beliefs, is missing data on some of its key components, including the disorienting dilemma.
- Therefore, given the theoretical alignment between the CBS and the disorienting dilemma, users' experiences with the CBS will provide an opportunity to examine this important component of transformative learning.
- Hence, the primary research question for the study was: What was the nature of CBS users' disorienting dilemmas?

- Cases for this study were selected based on the detection of a disorienting dilemma in participants' responses, and a secondary question or case issue (Stake, 2006) for this study was: What variables may have contributed to their disorienting dilemmas?

Study Outline

To explore the primary research question, this study used a multiple case study design. For data collection, the study used surveys, user logs, and participant interviews to explore three cohorts of education students' beliefs about teaching diverse students and their experiences using the Common Beliefs Survey (CBS).

Specifically, King's (1998) Learning Activities Survey was used to detect the existence of a disorienting dilemma related to participants' use of the CBS. The surveys were followed up by in-depth phone interviews with participants to probe their CBS experiences and tease out the qualities and dimensions of their reactions to the CBS that indicated a disorienting dilemma and other phases of transformative learning. Two cohorts experienced the CBS in a facilitated course. A third cohort of students went through the CBS in an unfacilitated environment and recorded their responses to each of the common beliefs and the learning resources attached to each belief in a log. These students were also interviewed by phone about their CBS experiences.

Prior to the student recruitment and interviews, a group of teacher educators were interviewed about their use of the CBS in their courses and their students' reactions *vis a vis* the survey. The teacher educators were also questioned about the ways in which they facilitated their students' interactions with the CBS, including the learning environment they created for their students within the course, the level of trust between themselves

and their students during the course, and specific activities related to the CBS. Two of the instructors were able to recruit students to participate in this study.

Cases for the study were selected from among all three cohorts of student participants based on whether or not a disorienting dilemma was detected and validated through analyses of their survey responses, logs (where applicable), and interviews. The cases were written up about each student and their experience and then analyzed for trends among users' reactions to the CBS.

Terminology

The terminologies used throughout this study are important for an understanding of the process of transformative learning as well as understanding the structure of the Common Beliefs Survey. Terminology of particular importance is as follows:

Adult Education. A process in which mature, socially responsible individuals participate in sustained formal or informal activities that lead them to “acquire new knowledge, skills, or values; elaborate on existing knowledge, skills or values; revise their basic beliefs and assumptions; or change the way they see some aspect of themselves or the world around them” (Cranton, 2006, p. 2).

Andragogy. A term for learning proposed by Malcolm Knowles in 1968 that distinguishes adult learning from pre-adult learning. It is the “art and science of helping adults learn” (Knowles, 1968 as cited in Merriam, 2001, p. 5). This is opposed to “pedagogy,” as a form of pre-adult learning.

Common Beliefs Survey. The Common Beliefs Survey is the signature tool on the Teaching Diverse Students Initiative's website. It is described on the website as an instrument that “identifies beliefs about teaching commonly held by many educators that,

while sensible and understandable in part, may have unintended negative consequences for students of diverse races and ethnicities. It can be used to motivate further learning and is the basis for one or more learning activities embedded in the tool. Explanations for why these beliefs are ‘mythtakes’ are provided along with resources for further learning about the content of the issues addressed (retrieved from http://www.tolerance.org/tdsi/about_tdsi on July 7, 2010).

Communicative Learning. First identified by Jürgen Habermas (1984), the purpose of communicative learning is learning to understand what others are saying and then to make ourselves be understood in the course of sharing ideas through speech, the written word, plays, moving pictures, television and art (Mezirow, 1990, 1991, 1997; Cranton, 2006; Taylor, 2007; Kitchenham, 2008). It focuses on achieving coherence rather than on improving performance or exerting control over causal relationship as in instrumental learning (Mezirow, 1990, 1991, 1997; Cranton, 2006; Taylor, 2007; Kitchenham, 2008). There are no empirical tests of truth. Instead communicative learning relies on consensual validation of assertions (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Kitchenham, 2008; Taylor, 1997). Premise reflection is embedded in communicative learning.

Critical Self-Reflection. A type of reflection that involves a critique of the presuppositions on which our beliefs have been built (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Merriam, 2004; Kitchenham, 2008). Critical self-reflection challenges the justifications of the premises upon which problems are posed or defined in the first place. This challenge requires critical reflection over one’s established and habitual patterns of beliefs and assumptions and can lead to rejection of values that have

been foundational to one's self-concept (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Merriam, 2004; King & Kitchner, 2008). It is concerned with the "why" rather than the "how" of our actions. Critical self-reflection is one of the primary mechanisms of beginning and sustaining the transformative learning process (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Merriam, 2004; Kitchenham, 2008).

Critical (Reflective) Discourse/Dialogue. Transformative learning is a social process rather than a solitary one, so discourse is a key part of the process (King, 2004; Kitchenham, 2008; Merriam, 2004). Critical discourse is "devoted to assessing reasons presented in support of competing interpretations, by crucially examining evidence, arguments, and alternative points of view" (Mezirow, 1997, p. 7). Mezirow & Associates (2000) later writes: "Reflective discourse involves a critical assessment of assumptions. It leads toward a clearer understanding by tapping collective experience to arrive at a tentative best judgment" (pp. 10-11).

Disorienting Dilemma. According to Mezirow (1991), the whole process of transformative learning begins with the disorienting dilemma. The disorienting dilemma can either be the result of an epochal dilemma, such as a death, illness or other major life occurrence. Or, it can be the result of experiences had and knowledge accrued over a period of time (Mezirow, 1991). However, the cognitive dissonance created by the disorienting dilemma is the kick-off for perspective transformation.

Frames of Reference (aka Meaning Perspectives). According to Mezirow & Associates (2000), a frame of reference is "the structure of assumptions and expectations through which we filter sense impressions. It involves cognitive, affective, and conative dimensions ... it provides the context for making meaning within which we choose what

and how a sensory experience is to be construed and/or appropriated” (p. 16). They are made up of “high-order schemata, theories, propositions, beliefs, prototypes, goal orientations and evaluations” (Mezirow, 1990, p. 2). Most are acquired through cultural assimilation. These are generally acquired uncritically in childhood through the process of socialization and usually involve important relationships (e.g. parents, teachers, mentors, etc.) Other meaning perspectives are intentionally learned (e.g. epistemological perspectives). Meaning perspectives may also involve ways of understanding and using knowledge and dealing with one’s feelings about oneself (Mezirow & Associates, 1990). A frame of reference is composed of two dimensions, habit of mind and point of view (Mezirow & Associates, 1990, 2000; Cranton, 2006; Kitchenham, 2008). (See Figure 2).

Habits of Mind. Habits of mind are dimensions of one’s frame of reference. They are broad, abstract, orienting ways of thinking, feeling, and acting and are influenced by assumptions that constitute a set of codes. The codes may be cultural, social, educational, economic, political or psychological (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Kitchenham, 2008). Mezirow (1997) explains that habits of mind get expressed in specific points of view.

Instrumental Learning. The term instrumental learning was coined by Jürgen Habermas (1984) and is a domain of learning which involves learning to control and manipulate the environment or other people. It is oriented towards improving task performance. Validity of beliefs in instrumental learning is achieved through empirical testing (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Habermas, 1984; Cranton, 2006; Kitchenham, 2008). Its counterpart is communicative learning.

Meaning Perspectives. Used interchangeably with “frames of reference,” meaning perspectives are the distinctive ways an individual interprets experiences.

Meaning Schemes. Meaning schemes are sets of “related and habitual expectations governing if-then, cause-effect, and category relationships as well as event sequences ... (they) are habitual, implicit *rules* for interpreting” (Mezirow & Associates, 1990, p. 2). These can be transformed through critical reflection. Points of view are made up of meaning schemes (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Imel, 1998; Taylor, 1990; Kitchenham, 2008).

Perspective Transformation. As defined by Mezirow (1991) perspective transformation is the process of “becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and, finally, making choices or otherwise acting upon these new understandings” (p. 167). This is the crux of transformative learning and there are 10 phases to the process of perspective transformation (see Table 1).

TDSi. The Teaching Diverse Students Initiative (TDSi) is a project of the Southern Poverty Law Center (SPLC). The goal of TDSi is to help educators enhance the learning opportunities, especially the quality of teaching, experienced by students of color. TDSi’s focus is on how educators can improve their professional skills, understandings, and dispositions that are especially relevant to the race and ethnicity of their students. One of the key tools of TDSi is the Common Beliefs Survey (retrieved from http://www.tolerance.org/tdsi/about_tdsi on November 10, 2010).

Transformative Learning. Transformative learning is the process of affecting change in one's frames of reference (Mezirow & Associates, 1990, 2000; Mezirow, 1991, 1997; Cranton, 2006; Imel, 1998; Kitchenham, 2008; Brock, 2010; Dirkx, 1998; Grabov, 1997). It generally occurs in 10 phases and is foundational to most adult learning, although it is not necessary to experience all 10 phases for perspective transformation.

These terms and definitions are handy “sketches” of the more robust concepts that were explored in the literature review conducted for this study. These concepts will be explored more fully in Chapter 2.

Chapter Two -- Literature Review

As stated earlier, existing research indicates that teachers' beliefs, attitudes and expectations guide their responses towards students and the beliefs that teachers hold about students often lead to differential treatment and expectations based on students' race/ethnicity (Hinnant et al., 2009; Jussim, 1986; Katz, 1991; Pohan & Aguilar, 2001). According to Pohan & Aguilar (2001), if schools are going to better serve the needs of students who have not traditionally fared well in the system, then "low expectations, negative stereotypes, biases/prejudices and cultural misperceptions that are embodied in teachers' beliefs need to be identified, challenged and reconstructed" (p. 160).

What is more, teachers are frequently unaware of their beliefs about race, ethnicity and how their beliefs impact their classroom behaviors (Brophy & Good, 1974; Kagan, 1992). If teacher beliefs about these things profoundly affect classroom practices -- especially those that discriminate against and disadvantage certain student populations -- then any effort to change practice must help teachers understand and alter their underlying beliefs (Kagan, 1992; Pohan & Aguilar, 2001; Vaughta & Castagnob, 2008).

This is not without significant challenge because in-service and pre-service teachers' beliefs are enormously resistant to change even in the face of solid disconfirming evidence (Kagan, 1992; Pajares, 1992). Transformative learning with its focus on perspective transformation holds great promise as a robust, yet agile enough, framework to address problematic teacher beliefs at a foundational level. And, the Teaching Diverse Students Initiative (TDSi) is an "intervention" that has a framework very similar to that of transformative learning. Therefore, three areas of literature are relevant to this study: a) research on teacher beliefs and their impact on instructional

practices towards minority students; b) research on transformative learning, particularly the disorienting dilemma; and c) documents and research related to the Teaching Diverse Students Initiative and the CBS.

Teacher Beliefs and Instructional Practices

How do teacher beliefs impact their classroom practices and how do they impact students' opportunities to learn and achieve, especially poor and minority students? One of the primary manifestations of teacher beliefs in the classroom is that of teacher expectancy (Brophy, 1983; Brophy & Good, 1974; Kerman, 1979; McKown & Weinstein, 2008). In the years since *Brown vs. The Board of Education*, achievement gaps have persisted between students of color and their more affluent White and Asian peers (Banks, 1995; Ladson-Billings, 1995; McKown & Weinstein, 2008; Villegas, 1991). Teacher expectancy has been proposed as a key contributor to that persistent gap (Guerra & Nelson, 2009; McKown & Weinstein, 2008).

Teacher expectancy. Research shows that a “host of factors are capable of evoking initial expectations, including physical appearance, race, social class, early performance, ethnicity, sex, speech style and diagnostic label” (Jussim, 1986, p. 431) with teachers having higher expectations of achievement for White and Asian-American students than of their African-American and Latino peers (Brophy, 1983; Cooper & Tom, 1984; Hinnant et al., 2009; McKown & Weinstein; 2008). Research also shows that teachers form impressions of students' abilities quite early in their interaction with them (Brophy & Good, 1974; Hinnant, et al. 2009; Jussim, 1986). These initial socio-economic- and race-based expectations may or may not be accurate and they may or may not be rigid. These two factors can help moderate the impact of teachers' expectations on

student outcomes, although the research on the accuracy of teachers' expectations regardless of how they are formed is ambiguous (Jussim, 1986).

Kagan (1992) and other researchers theorize that teacher expectations impact academic achievement through three causal paths:

- 1) The quality of teachers' instruction may differ for students based on their expectations, with students for whom they have lower expectations receiving lower quality of instruction.
- 2) Students may perceive the differential treatment and internalize their teacher's low expectations of them creating negative perceptions of their self-efficacy.
- 3) These perceptions can persist throughout their time in school. In turn, a negative sense of self-efficacy can lead to student frustration, apathy, failure and withdrawal from the educational process. These poor and minority students can develop a fear of being judged on the basis of stereotypes, making them more susceptible to negative expectancy effects (Jussim, 1986; McKown & Weinstein, 2008).

Research on teacher expectancy (and its corollary the self-fulfilling prophesy) has been conducted in both natural settings and experimental situations. While teacher expectancy effects and self-fulfilling prophesy phenomena have been observed in both, the effects in the experimental setting have proven to be much stronger (Brophy, 1983). Proctor (1984) also reports that research about differential treatment resulting from low teacher expectations of students, especially poor and minority students, manifests itself in the following classroom practices: low expectations; students are asked fewer questions and given less time to respond to questions; receive inadequate feedback in terms of quantity, accuracy and specificity; receive less praise for successful performance (but more for marginal performance); receive more criticism for incorrect responses; and receive fewer positive, non-verbal communications of warmth and person regard from the teacher.

The most notable and controversial research about teacher expectancy (aka “Pygmalion Experiment”) was done by Rosenthal and Jacobson (1968). In their research, they tested the proposition that within a given classroom the students from whom the teacher expected greater growth would actually experience that growth. The study came under immense scrutiny for perceived methodological errors (Rosenthal, 1987). Nonetheless, research since the “Pygmalion Experiment” has further confirmed the existence of teacher expectancy effects (and its corollary “self-fulfilling prophesy” which is discussed below), especially on students perceived as low achievers or “low-expectancy” students (Brophy & Good, 1974; Cooper & Tom, 1984; Hinnant et al., 2009; Kerman, 1979).

One of the more enduring concepts from Rosenthal’s (1974) additional “Pygmalion” research is the four factor theory: Teachers provide different amounts and types of feedback to highs and lows, are more emotionally supportive of highs, spend more time and effort with highs, and provide highs with greater opportunities to perform and learn (as cited in Jussim, 1986, p. 430; Brophy, 1983).

Another factor that can affect teacher expectations and the rigidity of those expectations is teachers’ beliefs about the malleability of intelligence. Those who subscribe to an entity theory of intelligence (Good & Dweck, 2006), which assumes that intelligence is fixed and cannot be altered, most likely have rigid expectations about students. Whereas, those teachers who embrace an incremental theory (Good & Dweck, 2006), which posits that intellectual skills can accumulate through experience, are more likely to adjust their expectations in response to students’ changing levels of accomplishment (Jussim, 1986). In fact Brophy (1983) writes that “although much is

known about how teachers may treat students inappropriately if they (the teachers) harbor rigid low expectations, the particular effects of such expectations are difficult to predict in advance because the expectations will interact with the teacher's personal characteristics and beliefs about teaching and learning to determine the teacher's actual behavior" (p. 632).

It is important to keep in mind that teachers' beliefs about race, ethnicity and class and any resulting expectations are not monolithic. They vary from teacher to teacher and the relationship between teacher expectancy and student performance is dynamic. As shown in Figure 1 student behavior can impact teacher expectancy and classroom practices and visa versa (Cooper & Tom, 1984; Jussim, 1986).

Self-fulfilling prophesy. A close correlate to teacher expectancy is the "self-fulfilling prophecy." The concept of self-fulfilling prophecy was first advanced in the United States by Robert K. Merton (1948) and later expanded by Gordon Allport (1954) (as cited in Katz, 1991). According to Merton (1948), the self-fulfilling prophecy is "in the beginning, a false definition of the situation evoking a new behavior which makes the originally false conception come true" (p. 195). In his study he uses his theory of self-fulfilling prophecy to help describe race relations in America. He writes: "As a result of their failure to comprehend the operation of the self-fulfilling prophecy, many Americans of good will are (sometimes reluctantly) brought to retain enduring ethnic and racial prejudices. They experience these beliefs, not as prejudices, not as prejudgments, but as irresistible products of their own observation" (p. 196).

Jussim (1986) identifies three sequential stages in which the self-fulfilling prophesy plays out and which are very similar to Kagan's (1992) causal paths: a)

teachers develop expectations; b) teachers treat students differently depending on their expectations; and c) students react to this treatment in expectancy-confirming ways (p. 429). Rosenthal's (1974) four-factor theory about teacher expectancy discussed earlier can be overlaid on this sequence to illustrate how step (b) in the sequence manifests itself (Cooper & Tom, 1984; Jussim, 1986).

As a result of the differential learning opportunities provided, students respond accordingly thereby, fulfilling the teacher's "prophesy" about the students' academic success and re-enforcing the teacher's expectations of the student (Cooper & Tom, 1984; Jussim, 1986). Interestingly, the stronger the students' perceptions of differential treatment towards high and low achieving students by the teacher - especially if the differentiation by the teacher is based on their beliefs about student ethnicity - the stronger the relationship is between teacher expectations and year-end achievement usually to the negative (McKown & Weinstein, 2008).

Duration is also a factor in the connection between teacher expectancy, differential treatment and the self-fulfilling prophesy. If the differential treatment continues unabated and neither the teacher nor the pupil are successful at changing it, then the differential treatment will result in corresponding high or low student achievement and possibly impact students' achievement with other teachers (Proctor, 1984; Hinnant et al., 2009). Further, if low achieving students are grouped and tracked together consistently, the chances increase for self-fulfilling prophesies of poor academic outcomes among these students (Brophy, 1983). So, if there is a higher percentage of minority and/or poor students than White student in a classroom who are grouped in

lower-achieving tracks, then poor academic performance among these students is likely to become a self-fulfilling prophecy.

Research has identified student characteristics that can act as moderating variables to the self-fulfilling prophecy. Jussim (1986) states that one of the most important factors mediating the impact of teacher expectations and for interrupting the self-fulfilling prophecy may be students' sense of self. Also, students' self-schema, which is the set of beliefs one holds about oneself in a more restricted domain (e.g. intelligence, friendliness, physical ability) can impact the interpretation of information one receives in that domain and can enable them to more readily resist counter-schematic information (Jussim, 1986). So, if a student believes he is intelligent and capable of learning, there is some student indemnification from a teacher's differential treatment of him as a low achiever pulling him into the self-fulfilling prophecy cycle.

A key nuance to the connection between teacher expectancy and the self-fulfilling prophecy is that the self-fulfilling prophecy is present only when a teacher's expectancy is based on a false conception of a student's ability (Brophy, 1983; Cooper & Tom, 1984; McKown & Weinstein, 2008). If a teacher's expectations for a student prove to be accurate and the student performs at the expected level, then there is no self-fulfilling prophecy present. The challenge is determining what a teacher's expectations for the student were to begin with (Jussim, 1986; Cooper & Tom, 1984); how accurate they are; and if there are classroom contexts and teacher characteristics that might be more prone to self-fulfilling prophecy (Brophy, 1983).

Hinnant, et al. (2009) report that research consistently indicates the self-fulfilling prophecy is a real phenomenon and that the effect sizes are statistically significant if not

small to moderate (effect sizes generally between .1 and .3). Brophy (1983) reports effect sizes of self-fulfilling prophecy in a typical classroom as ranging from 5% to 10% per student in terms of academic increase or decrease. Regardless the effect size, the significant growth of non-white student populations in our nation's public schools necessitates that teacher expectancies that grow out of their beliefs and influence their classroom practices be identified and examined at both the pre-service and in-service stages (Kagan, 1992; Pohan & Aguilar, 2001; Vaughta & Castagnob, 2008). Research, however, has identified some factors that can mediate the way teachers' beliefs about poor and minority students get translated into classroom practices, including teacher expectancies that can result in self-fulfilling prophecies about students' achievement. By mediating, I mean that these factors can sustain, amplify, diminish, or eliminate classroom practices that emerge from teachers' beliefs.

Instructional Practices

What do we mean by instructional practices? Instructional practices in the literature generally include: classroom grouping and tracking; discipline; student-teacher communication, including feedback; assessments; motivational strategies; pedagogical approaches; curriculum and materials used; lesson planning and time management (Haberman, 1991; Kagan, 1990; Proctor, 1984). For purposes of this discussion, I have distilled these elements into four broad categories of key instructional practices as reflected in the literature reviewed – control and discipline; student-teacher relationships and communication; grouping and tracking; and pedagogy and curriculum. These dimensions are illustrated in Figure 3.

Following is a more targeted discussion of how teacher beliefs influence the four areas of instructional practice outlined above.

Key Instructional Practices

Instructional practices generally take place in a classroom and teachers are the managers of those classrooms. Research reveals that an educator's knowledge of and demonstration of caring attitudes and actions, congruent communication, assertiveness and authority, and demands for students' efforts and academic production are important variables in that management function (Brown, 2004). Classroom management determines in large part the learning environment in which teachers and students operate and it can vary from teacher to teacher (Anyon, 1981; Hinnant et al., 2009; Love & Kruger, 2005; Proctor, 1984; Vaughta & Castagnob, 2008). Each of the instructional practices in Figure 3 contributes to classroom management and to the overall learning environment.

Control and discipline. According to the literature, a major influence of classroom management is teacher perception of and need for control (Brophy, 1983; Cooper & Tom, 1984; Haberman, 1991; Jussim, 1986). Control is defined by Jussim (1986) as "the teacher's ability to determine an exchange's content, timing, and duration" (p. 84). Many teachers believe that they must control interactions with students of low ability because they believe these interactions will require extra time and effort, which will take away from the limited time they have to teach all of the students (Brophy, 1983; Cooper & Tom, 1984; Jussim, 1986; Kagan, 1992). Hence, the level of control the teacher perceives over a particular classroom context can impact the classroom practices

they deploy based on their beliefs about students of perceived high and low abilities (Brophy, 1983; Cooper & Tom, 1984; Jussim, 1986).

Control is part-and-parcel of teachers' beliefs about their own self-efficacy, which can mediate the amount of control they feel compelled to assert (Bandura, 1982 as cited in Fuchs, Fuchs & Phillips, 1994; Solomon, Battistich & Horn, 1996). Self-efficacy is the belief "in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997 as cited in Ross & Gray, 2006, p. 801). Self-efficacy affects behavior directly by impacting goals, outcome expectations, affective states, and perceptions of socio-structural impediments and opportunities (Bandura, 2000 as cited in Ross & Gray, 2006; Brophy, 1983; Proctor, 1984; Weinstein, Madison & Kulklinski, 1995). Teachers who have a strong sense of self-efficacy are more likely to share power in the classroom with their students (Proctor, 1984). Conversely, teachers with a weaker sense of self-efficacy are more likely to seek and hoard control within the classroom (Weinstein et al., 1995).

Flowing from control (and self-efficacy) and contributing to classroom management are disciplinary practices. Discipline in this context refers to the punitive and correctional practices a teacher uses to address students' behavior, particularly that which the teacher perceives as disruptive (Brophy, 1983; Goldberg, 1971; LeCompte, 1978; Page, 1987; Proctor, 1984; Rist, 1972). Many researchers have documented the pervasive and punitive disciplinary practices by teachers in schools with high minority and high poverty student populations (Anyon, 1981; Brophy, 1983; Brown, 2004; Delpit; Fuchs, et al., 1994; Goldberg, 1971; Haberman, 1991; LeCompte, 1978; Page, 1987; Proctor, 1984; Rist, 1972; Solomon et al., 1996; Weinstein et al., 1995). Their research

demonstrates a strong set of teacher beliefs about their students based on race and class that drive the degree and manner to which they apply discipline. These beliefs presume that these students are low achievers and disdainful of education's value; therefore, they are in need of more discipline to keep them in line (Brophy, 1983; Page, 1987; Proctor, 1984; Rist, 1972).

Part of discipline is the notion of teacher authority. Interestingly, several researchers have noted that authoritarianism is an effective and somewhat desirable classroom management practice in high minority classrooms when it leads to clear expectations for students about behavior and academic performance (Brown, 2004; Delpit, 1995; LeCompte, 1978). In fact, Delpit (1995) stated unequivocally, "Black children expect an authority figure to act with authority" (p. 35).

Delpit (1995) hypothesizes that many White teachers resist asserting their power and authority in the classroom because it is viewed as disempowering their students. She substantiates this claim with a quote from a White teacher in her article "The Silenced Dialogue": "It's really a shame but she (the Black teacher upstairs) seems so authoritarian, so focused on skills and so teacher directed. Those kids never seem to be allowed to really express their creativity. (And she even yells at them.)" (Delpit, 1995, p. 33).

Delpit (1995) further writes and Brown (2004) concurs that "the authoritative teacher can control the class through exhibition of personal power; establishes meaningful interpersonal relationships that garner student respect; exhibits a strong belief that all students can learn; establishes a standard of achievement and 'pushes' the students to achieve that standard" (p. 36). This is a different form of control and

discipline than documented earlier. As conceptualized by Delpit (1995) and Brown (2004), it is a meaningful application of structure that results in an effective level of student-teacher engagement around learning (Ladson-Billings, 1995; Love & Kruger, 2005). There is, however, a research-substantiated link between teachers' beliefs about race, ethnicity and class and their use of control and discipline in the classroom to the detriment of students.

Student-teacher relationships and communication. The quality of student-teacher relationships is often associated with students' overall experience and success in the class (Brophy, 1984; Jussim, 1986; Ladson-Billings, 1995; Minor, Onwuegbuzie, Wichter, & James, 2002; Proctor, 1984; Weinstein, et al., 1995). Brown's (2004) research shows that creating a positive learning environment requires attentiveness to the way in which teachers communicate with students and in fact "differences in communication processes affect the quality of relationships between teachers and their African, Hispanic, and Native American and immigrant students" (p. 271).

A teacher's communication process can vary from student to student in the same classroom. The differences in communications suggest variation in teacher attitudes and expectations as well. The variation occurs in all of the dimensions of communication – listening, the message being communicated, the manner in which the communication is made, and the clarity of the communication (Brophy, 1983; Brown, 2004; Delpit, 1995; Ladson-Billings, 1995; McAllister & Irvine, 2000).

If, as Brown (2004) writes, communication processes affect the quality of the student teacher relationship and communication is influenced by teacher beliefs and expectations, then these beliefs have an impact on student-teacher relationships. Brown

(2004) studied the instructional practices of 13 teachers who embraced a culturally responsive pedagogy and noted that each one of them saw establishing caring and mutually respectful relationships with their students as key to providing high quality instruction to those students. On the other hand, Brophy (1983) documents in his review on the literature about teacher expectations and self-fulfilling prophecies that many teachers who view students as low-achieving develop more distant relationships with these students that were more authoritarian and controlling with little sense of trust (Brophy & Good, 1974; Cooper & Tom, 1984; Goldberg, 1971; Solomon et al., 1996).

Given the frequency with which teachers ascribed low expectations to students of color, teacher communications and the attendant relationship with these students can be marginally productive at best and discriminatory at worst (Brown, 2004; Callahan, 2005; Delpit, 1995; Webb, 2001). Students often do perceive teachers' differential treatment in the classroom and respond accordingly and often internalize their teacher's perceptions about them (Cooper & Tom, 1984; Jussim, 1986; Smith & Luginbuhl, 1976). For instance, the research shows that teachers provide less constructive feedback to, but criticize more frequently, students they perceive as low achievers (Brophy, 1983; Brophy & Good, 1974; Cooper & Tom, 1984; Jussim, 1986; Smith & Luginbuhl, 1976). This differential and primarily negative message and communication can lead to the self-fulfilling prophecy of low achievement and limit students' opportunities to learn (Brophy, 1983; Brophy & Good, 1974; Cooper & Tom, 1984; Jussim, 1986; Smith & Luginbuhl, 1976). In fact, Brophy's (1983) review on the literature of teacher expectancy and the self-fulfilling prophecy identified a whole host of attributes that are often present in the

communication and relationships between teachers and students for whom they have low expectations (see Appendix C).

Suffice it to say, student-teacher communication and relationships are integral to a student's opportunities to learn and can be directly influenced by teachers' beliefs and expectations.

Grouping and tracking. Even though grouping and tracking practices are often set at the school level (Heck, Price, & Thomas, 2004; Lucas, 1999 as cited in Callahan, 2005), in this study they are identified as teacher's instructional practices with the understanding that teachers can impact its implementation within their classroom. With the theory behind tracking being that low-performing students must be separated from other students and taught a simplified curriculum thus allowing high-performing students to move ahead unhampered by their peers, tracking would seem to be as much of a classroom management strategy as a curricular and pedagogical strategy (Tyack, 1974 as cited in Callahan, 2005). Both track placement and mobility vary along racial lines (Lucas & Good, 2001 as cited in Callahan, 2005), suggesting that placement is not wholly meritocratic.

Teachers have the ability to move students from low tracks to higher tracks whenever warranted or at least to minimize the deleterious dynamics of tracking in their classrooms, but rarely does this happen (Brophy, 1983; Brophy & Good, 1974; Jussim, 1986; Oakes, 1992). In fact, teachers can ignore these groupings in their classroom if so inclined. However, a teacher who has particularly rigid expectations about her students would not be so inclined. Nor would she view her students as capable of making the kind

of progress that would justify moving them to a higher track (Callahan, 2005; Cooper & Tom, 1984; Oakes, 1992).

When students enter a teacher's classroom as part of a pre-assigned achievement group or track, the teacher often disciplines and communicates with students based on her differential beliefs and expectations about low and high achievers rather than on individual students' academic performance and classroom behavior (Brophy, 1983; Brophy & Good, 1974; Cooper & Tom, 1984; Jussim, 1986; Oakes, 1992; Smith & Luginbuhl, 1976). As Jussim (1986) writes: "One especially powerful factor leading teachers to feel confident in the validity of their expectations may be tracking. Students placed into high- versus low-track classrooms have been institutionally confirmed as belonging in a certain ability level" (p. 434). Allington (1980 as cited in Jussim, 1986) writes further: "Consistent with this hypothesis, research has found that teachers give low-group students less of a chance to perform either by giving them less time to answer, interrupting them more frequently, or giving them the answer" (p. 438).

The composition of the classroom as it pertains to student groups and tracks, usually has an impact on the way a teacher manages that particular class (Brophy, 1983; Cooper & Tom, 1984). In addition to such studies of differential treatment of groups within the same class, research is accumulating on differential teacher treatment of different intact classes, especially classes that differ in student achievement level due to tracking systems in the schools (Brophy, 1983). This differential treatment necessarily works its way into classroom management strategies, with a tendency to be more controlling and authoritarian to lower-track students (Brophy & Good, 1974; Cooper & Tom, 1984; Goldberg, 1971; Solomon et al., 1996).

What is more, teachers may be much less prepared for low track classes, where they are much more likely to spend time correcting papers, or to allow students to do activities of their own choosing rather than to spend the time teaching academic content (Brookover, Beady, Flood, Schweitzer & Wisenbaker, 1979; Keddie, 1971; Leacock, 1969; Rosenbaum, 1976 as cited in Brophy, 1983). Katz (1999 as cited in Callahan, 2005) found that track placement not only determined access to academic and linguistic content but also influenced teachers' beliefs about and treatment of students (Oakes, 1992; Brophy, 1983; Callahan, 2005; Cooper & Tom, 1984; Page, 1987).

It needs to be said that grouping within a classroom can be an effective instructional practice when the groupings are flexible and are done in support of creating heterogeneous student interactions on a topic or activity (Weinstein et al., 1995). Grouping in this manner enables a teacher to break down the pre-assigned tracks within the context of her classroom (Oakes, 1992; Weinstein et al., 1995). However the preponderance of research suggests that tracking has negative consequences for all but the highest-achieving students (Hawley, 2007).

Pedagogy and curriculum. Pedagogy and curriculum are linked entities in that curriculum may dictate the pedagogical approach a teacher adopts for delivery. However, a teacher's pedagogy may be more influenced by her beliefs and expectations, than any curriculum guide (Guerra & Nelson, 2009; Richardson, Anders, Tidwell & Lloyd, 1991). Curriculum, like grouping and tracking is also impacted by school policy and is tied directly to the instructional goals of the teacher (Callahan, 2005). The curricular structure in place in U.S. schools grants access to challenging academic opportunities to some while denying it to others (Lucas, 1999 as cited in Callahan, 2005).

Likewise, teachers' pedagogical practices can either remedy that inequity or can exacerbate it (Banks, 1995; Gay & Kirkland, 2003; Ladson, Billings, 1995; Love & Kruger, 2005; Pohan & Aguilar, 2001; Villegas, 1991; Weinstein et al., 1995).

In many ways, curriculum and pedagogy are linked to grouping and tracking even though they are their own dimensions of instructional practice. In the case of English Language Learners for instance, researchers describe the English-as-a-second-language learning (ESL) environment as substandard, limited to low-level, remedial coursework meant to compensate for students' limited language skills (Harklau, 1999; Olsen, 1997 as cited in Callahan, 2005). This is something over which a teacher has some control. According to Callahan (2005), "The rationale for exposing English learners to a less challenging curriculum resides in educators' beliefs about linguistic as well as academic abilities. Teachers, principals, and counselors frequently, though perhaps inadvertently, interpret limited English proficiency as a form of limited intelligence and place students in low-track classes to compensate for this perceived deficiency" (p. 310). Again, teachers, through their classroom pedagogy and use of supplemental curriculum materials can transcend the track assignments to expose all students to rich and engaging curriculum and teaching (Oakes, 1992; Weinstein, et al., 1995).

While there are a number of schools of pedagogical practices, such as culturally responsive teaching (Ladson-Billings, 1995), constructivist learning (Solomon et al., 1986) and authentic pedagogy (Newmann & Wehlege, 1995) pedagogy is a complex endeavor that is difficult to pigeon-hole (Mensah, 2009; Minor et al., 2002). Perhaps the reason a teacher's pedagogical practices may defy categorization is because they may be driven more by her personal and professional beliefs than by an affinity for anyone

school of practice (Guerrera & Nelson, 2009; Kagan, 1992; Richardson et al., 1991). In fact, a number of researchers posit that in order to change teacher practices, especially practices towards minority students, you must first change their beliefs (Guerrera & Nelson, 2009; Kagan, 1992; Pohan & Aguilar, 2001; Vaughta & Castagnob, 2008).

Pohan & Aguillara (2001) hypothesize that there might be a situation in which a teacher's personal beliefs about a given issue could be in direct conflict with her pedagogical beliefs in a professional context. They give the following example to illustrate this conflict: In a personal context, an educator might believe that bilingualism is an asset in today's increasingly diverse and global society. Within a professional (i.e., schooling) context, however, this same educator might reject the notion of public monies being spent on bilingual education (i.e., maintenance programs) (Pohan & Aguilarra, 2001). Certainly these conflicting beliefs will impact a teacher's pedagogy, as well as the curriculum she embraces or rejects (Kagan, 1992).

As the focus of this section is about teacher beliefs about race, ethnicity and class that impact their instructional practices, one of the pedagogical practices that should be described in a bit more detail is culturally responsive teaching. This pedagogical/curricular practice has the potential of moving teachers' beliefs and expectations in a direction that enables them to more effectively teacher diverse student populations (Banks, 1995; Brown 2004; Ladson-Billings, 1995; Villegas, 1991).

According to Brown (2004), culturally responsive teaching involves:

Purposely responding to the needs of the many culturally and ethnically diverse learners in classrooms. It involves implementing specifically student-oriented instructional processes as well as choosing and delivering ethnically and culturally relevant curricula. Culturally responsive teachers use communication processes that reflect students' values and beliefs held about learning, the responsibilities of teachers, and the roles of students in school settings (p. 268).

Brown's description of culturally responsive pedagogy is supported by the work of a number of researchers (Banks, 1995; Delpit, 1995; Gay, 2000; Ladson-Billings, 1995; Villegas, 1991) with them echoing the notion that the key to effective culturally responsive pedagogy is the ability to create meaningful classroom experiences that take into account students' background experiences (Villegas, 1991).

Other critical elements of culturally responsive teaching include "unpacking unequal distributions of power and privilege, and teaching students of color cultural competence about themselves and others" (Gay & Kirkland, 2003, p. 182). Gay and Kirkland (2003) outline the premises upon which the case for culturally responsive teaching rests: "a) multicultural education and educational equity and excellence are deeply interconnected; b) teacher accountability involves being more self-conscious, critical, and analytical of one's own teaching beliefs and behaviors; and c) teachers need to develop deeper knowledge and consciousness about what is to be taught, how, and to whom" (p. 181).

Several researchers have noted that many White teachers have difficulty with recognizing students' cultural resources and prior knowledge because of their own beliefs and expectations. What they often view as students' deficits are often students' cultural resources (Delpit, 1995; Gay & Kirkland, 2003; Guerra & Nelson, 2009; McAllister & Irvine, 2001; Vaughta & Castagnob, 2008). Here again, teacher beliefs and expectations impact their instructional practices.

Mediating Factors

What mediates the translation of teachers' beliefs into classroom practices? There are a number of factors that affect this translation. Following are the factors identified in

the research reviewed along with a brief description of how they influence the translation.

The isolated and imprecise nature of teaching. Teachers often work in isolation once they close their classroom door (Kagan, 1992). There is limited feedback from outside sources about the effectiveness of their practices, as well as feedback concerning their treatment of students in their charge (Kagan, 1992). This isolation can foster negative attitudes, including defensiveness about their practices and distrust of any external advice or information, which can amplify and sustain any practices that are outgrowths of any similarly negative beliefs (Kagan, 1992). Given the imprecise nature of teaching, there are few “step-by-step” sets of instructions for teachers to follow when crafting their pedagogical practices, so this imprecision allows teacher beliefs and experiences to play a key role in teachers developing their personal pedagogies (Kagan, 1992).

Disconfirming evidence. Depending on the rigidity of a teacher’s beliefs, disconfirming evidence may alter the connection between her beliefs about and expectations for students and her related classroom practices (Jussim, 1986; Weinstein, et al., 1995). For instance, if a teacher has low expectations for a student at the beginning of the year that are based on the student’s race or prior academic achievement but the student performs much better than expected, then a teacher with more pliant beliefs and expectations will adjust their practices towards that student accordingly. However, if the teacher has more rigid beliefs and expectations, such disconfirming evidence will create a cognitive dissonance within the teacher that may cause the teacher to consider the student’s performance an anomaly and, thus, she does not adjust her beliefs, expectations or practices (Jussim, 1986; Weinstein et al., 1995).

Classroom context. Each classroom of students is different. This contributes to the imprecise nature of teaching because the dynamics of the classroom constantly change thereby creating an environment of shifting instructional challenges to which the teacher must respond (Kagan, 1992; McKown & Weinstein, 2008). As such, teachers are constantly making pedagogical decisions often based on their beliefs and past experiences, which include responses to individual or groups of students in the classroom (Jussim, 1986; Kagan, 1992). This can either amplify or diminish the expression of their beliefs through practice. What is more, the structures of the classroom at different grade levels can mediate teacher behavior. For example, in early grades teachers spend more time with students and develop more in-depth relationships with them (Brophy, 1983; Cooper & Tom, 1984). This can provide teachers with exposure to disconfirming information that can change their beliefs and practices should the teachers be so inclined.

Control is another dimension of classroom context. Control is defined by Jussim (1986) as “the teacher’s ability to determine an exchange’s content, timing, and duration” (p. 84). Many teachers believe that they must control interactions with students of low ability because they believe these interactions will require extra time and effort, which will take away from the limited time they have to teach all of the students (Brophy, 1983; Cooper & Tom, 1984; Jussim, 1986; Kagan, 1992). Hence, the level of control the teacher perceives in a particular classroom context can impact the classroom practices they deploy based on their beliefs about students of perceived high and low abilities (Brophy, 1983; Cooper & Tom, 1984; Jussim, 1986).

Content area/curriculum. A teacher’s content area may mediate the connection between teacher’s beliefs and practices. Content-specific beliefs have been

found to correlate with a wide variety of instructional and noninstructional variables. That is, “teacher beliefs may be mediated by epistemological differences inherent in respective content areas or by the kinds of instructional materials that happen to be available” (Kagan, 1992, p. 73). Further, curriculum that is mandated by school policy may determine teachers’ classroom practices in some cases outweighing the impact of teacher beliefs on those practices (Alger, 2009; Anyon, 1981; Kerman, 1979; Love & Kruger, 2005; Mensah, 2009; Pohan & Aguilar, 2001; Proctor, 1984). This may be especially true if a school adopts a new curriculum, such as a multicultural curriculum, that requires pedagogical strategies that are substantially different from the teacher’s standard practices (Banks, 1995; Ladson-Billings, 1995; McAllister & Irvine, 2000; Pohan & Aguilar, 2001).

School and district policies. It is not unusual for teachers’ beliefs to clash with school and/or district policies (Richardson, Anders, Tidwell & Lloyd, 1991; Webb, 2001). These policies may mediate teacher beliefs if teachers have to change their practices to achieve compliance (Weinstein, et al., 1995). Standardized tests are a good example of this (Alger, 2009; Ladson-Billings, 1995; Weinstein et al, 1995). In these cases, there may be teachers who ignore the policies or do very little to accommodate them in the context of their classroom practices (Rist, 1972). In other cases, the same policies may validate teachers’ beliefs and subsequent practices (Anyon, 1981; Vaughta & Castagnob, 2008).

School culture and climate. While teachers can close their classroom doors to many of the school and district policies, they are less able to distance themselves from school culture. Indeed, each classroom may be a micro-culture that is directly influenced

by teachers' beliefs. However, because classrooms are embedded within a larger system, the culture of the larger system may reach into the classroom and affect the translation of a teacher's beliefs into their practices (Alger, 2009; Love & Kruger, 2005; Rist, 1972). For instance, a school culture that views teachers as independent operators may enable teachers to deploy their classroom practices however they choose. Whereas, a school culture that values collaboration and emphasizes the collective effort of teachers on behalf of all students will probably temper teacher beliefs as they translate into their classroom practices because their work must mesh within a larger culture (Love & Kruger, 2005; Rist, 1972). Additionally, a school that embraces the idea that all of its students can and will succeed regardless of race, SES status or English language status can mediate the translation of those teachers' beliefs that are less sanguine about diverse students' chances for success (Love & Kruger, 2005).

School leadership. School leadership is closely related to the mediating variables of school/district policy and school culture, but is important enough to mention independently (Ross & Gray, 2006; Taylor, 1994 as cited in McAllister & Irvine, 2000). Even though a teacher may be able to shut the door of her classroom to outside moderating influences, often school leadership officially "intrudes" at least once a semester to evaluate the teacher. The frequency and nature of these intrusions may cause teachers to alter their classroom practices regardless of their beliefs. For instance, if a school principal tends to emphasize "drill and kill" as a pedagogical strategy, then teachers will be under pressure to include that approach in their classroom practices regardless of their beliefs about that instructional practice lest they be negatively evaluated (Richardson, et al., 1991; Webb, 2001). Conversely, if school leadership

embraces a policy of high quality learning opportunities for all students and incorporates that into their teacher evaluation criteria, then teachers will be pressed to adjust their classroom practices (e.g. wait times, opportunities to participate, grouping strategies, etc.) to ensure that they provide high quality teaching to all students regardless of their personal beliefs about and expectations for the students (Ladson-Billings, 1995; Ross & Gray, 2006; Vaughta & Castagnob, 2008; Weinstein et al., 1995).

Interventions to Change Teacher Practices

Can teachers' beliefs be changed? If so, what affects change in these beliefs? As stated earlier, in-service and pre-service teachers' beliefs are enormously resistant to change even in the face of solid disconfirming evidence (Kagan, 1992). However, changing teacher beliefs is critical to changing practice (Banks, 1995; Gay & Kirkland, 2003; Guerra & Nelson, 2009; Love & Kruger, 2005; Kagan, 1992; Ladson-Billings, 1995; Richardson et al., 1991; Villegas, 1991; Webb, 2001). If teacher beliefs form the base of classroom practices -- albeit often mediated by other factors -- that contribute to students' opportunities to learn and those beliefs are difficult to identify and change, what are the options for making those changes (Guerra & Nelson, 2009; Pohan & Aguilar, 2001; Richardson et al., 1991; Vaughta & Castagnob, 2008)?

Weinstein, Madison & Kuklinski (1995) identify five distinct categories of constraints perceived by teacher to changing their expectations to ensure they have high expectations for all students: a) attitudes and beliefs; b) behavior and climate; c) access to knowledge and resources; d) policies; and e) responses to change" (p. 134). Alger (2009) echoed these same categories of restraint in her research on secondary teachers' conceptual metaphors of teaching and learning. Alger (2009) also found that even though

student teachers' beliefs appear to be intractable during their pre-service programs, approximately two-thirds will change at least their beliefs about the teaching profession as they gain more teaching experience and spend more time in the classroom. Her research found that few teachers attributed change to professional development, collaboration with other teachers or administrative mandates to change. Experience and personal and professional reflection were more often cited as causes of change (Alger, 2009). Following are some of the other strategies identified in the literature for changing teacher beliefs and practices.

Critical reflection. Teacher critical reflection and reflective teaching are considered key strategies for changing teacher beliefs, especially among pre-service teachers (Banks, 1995; Gay & Kirkland, 2003; Guerra & Nelson, 2009; Love & Kruger, 2005; Kagan, 1992; Webb, 2001). Webb (2001) describes critical reflection and reflective teaching as:

Reflective activities strive to help pre-service teachers interrogate their deeply held beliefs about teaching and learning and frequently replace beginning teachers' prior beliefs with more productive and equitable conceptions of instruction.

The process of examining one's pedagogical beliefs implicitly asks beginning teachers to investigate other epistemological issues as well. The acquisition of new instructional strategies typically clashes with the kinds of instruction beginning teachers received as students in classrooms. This clash challenges pre-service teachers to understand how knowledge is generated from a variety of instructional methods, raising complex issues over the values associated with selecting multiple, and at times different, ways of knowing (p. 248).

While Webb's description focuses primarily on pre-service teachers, it is applicable to in-service teachers as well. However, Webb (2001) argues that reflection and reflective teaching when done in isolation will not necessarily help teachers understand their racial and gender attitudes or enable them to visualize pedagogical

options beyond the scope of their assumptions. Nor will reflection help White teachers understand how their Whiteness occludes their ability to identify and challenge structural racism in the education system that can suppress minority students' achievement (Vaughta & Castagnob, 2008).

Weinstein et al. (1995) posit that expectancy-change models need to move beyond the student-teacher dyad to also address the systemic and contextual factors that mediate teacher expectancies and classroom practice: "Existing working conditions (in the classroom, among colleagues, and in the school) need to be altered so that disconfirming evidence will occur, be acknowledged, and be generalized, ultimately challenging underlying beliefs about the limits of human capacity to achieve. Without such a shift in the culture of teaching and learning, the self-fulfilling prophecy will likely continue unabated" (p. 156).

Professional development. Another, more prevalent but less effective strategy in the literature for changing teacher beliefs is mandated professional development seminars focused on cultural competency and diversity (Vaughta & Castagnob, 2008; Richardson et al., 1991). To make these professional development opportunities more effective, Richardson et al. (1991) suggest that these programs need to weave three forms of knowledge together: "teachers' background theories, beliefs and understandings of the teaching (and reading process); theoretical frameworks and empirical premises as derived from current research; and alternative practices that instantiate both teachers' beliefs and research knowledge" (p. 579).

Vaughta & Castagnob (2008) challenged the use of professional development opportunities such as trainings on developing cultural awareness as a method for

changing teacher beliefs. Their contention using Critical Race Theory is that these trainings tend to cast racism as an individual phenomenon and limits participants' ability to see the larger racist structures and institutions that allow racism to persist.

Multicultural education and culturally responsive teaching. Multicultural education and its corollary of culturally responsive teaching is another approach that has gained significant traction as a strategy for both changing (or at least exposing) teacher beliefs and creating curriculum and structures that better serve diverse student populations (Banks, 1995; Gay & Kirkland, 2003; Ladson, Billings, 1995; Love & Kruger, 2005; Pohan & Aguilar, 2001; Villegas, 1991). Multicultural education is defined as “a field of study designed to increase educational equity for all students that incorporates for this purpose content, concepts, principles, theories, and paradigms from history, the social and behavioral sciences, and ethnic studies and women’s studies” (Banks, 2004, p. xii).

Culturally responsive teaching is the means by which multicultural education gets operationalized in the classroom. It creates effective instruction through its ability to create meaningful classroom activities and curriculum that take students' background experiences into account (Villegas, 1991). By training teachers in culturally responsive teaching early in their careers, teachers are given opportunities to construct classroom practices that can mitigate any biases they may have about race, ethnicity or social class that would otherwise impact their pedagogical practices (Ladson-Billings, 1995; Villegas, 1991).

Reforming teacher preparation programs. A final intervention identified in the literature reviewed for this study about changing teacher beliefs and classroom

practices is to reform teacher preparation programs. Basically, the literature acknowledges that pre-service teachers rarely leave their preparation programs with altered beliefs about race, ethnicity and class differences that are altered by the program in any way. Thus, it essential that these programs become more effective at affecting change in students' beliefs (Alger, 2009; Gay & Kirkland, 2003; Kagan, 1992; Love & Kruger, 2005; Vaughta & Castagnob, 2008; Villegas, 1991).

Montecinos & Rios (1999) recommend two sets of beliefs that should be explored in teacher preparation programs: "The first is to help students reconstruct their understanding of 'educational equality.' Second, a discussion of multicultural teacher education of any consequence stresses the importance of directly addressing racism (Nieto, 1996 as cited in Montecinos & Rios, 1999)" (p. 21-22). Montecinos & Rios (1999) make a further recommendation about the preparation of White teachers. Their findings suggest that teacher programs adopting a multicultural teacher education curriculum must candidly address White students' "fears and concerns regarding the status that White people would have under a multicultural arrangement" (p. 22).

Sharon Tettegah's 1997 study on the racial consciousness attitudes of White prospective teachers found that teacher education programs "would be well-served to develop more courses that properly evaluate and process the racial attitudes of prospective teachers. Such programs would lend vital support to efforts aimed at assisting and speeding the elimination of racism, preferential treatment, and discrimination in our nation's schools" (p. 160). She was not advancing a new idea about needed changes to teacher preparation program. Almost 20 years prior to Tettegah's finding, Gay (1978) stressed that "deliberately organized training programs must be

designed to get teachers and other school personnel ready to function differently and more effectively in desegregated schools” (p. 151).

Essentially, these researchers are promoting social justice and multicultural education agenda teacher prep programs as a way of improving teaching, especially when it comes to teaching minority students. As Cochran-Smith, Shakman, Jong, Terrell, Barnatt, & McQuillan (2009) wrote that “teaching for social justice, or what we title here ‘good and just teaching,’ reflects a central and essential purpose of teaching in a democratic society, wherein the teacher is an advocate for students whose work supports larger efforts for social change” (p. 349).

Regardless the intervention, the bottom line is that problematic teacher beliefs that negatively affect instructional practices and disadvantage students need to be identified and transformed. An authentic and lasting transformation of beliefs and subsequent application of transformed beliefs into instructional practice requires a comprehensive framework to be accomplished. Transformation Theory and transformative learning offers that possibility.

Transformative Learning

Jack Mezirow, often credited with defining the theoretical framework for transformative learning, started his work from a premise he thought to be universal: “A defining condition of being human is our urgent need to understand and order the meaning of our experience, to integrate it with what we know to avoid the threat of chaos” (Mezirow & Associates, 2000, p. 3). Without this understanding, then we often fall back on tradition, grasp at untested, novel explanations handed down by authority

figures or create meanings for ourselves using psychological trickery (Mezirow & Associates, 2000).

There appears a fairly clear alignment between Mezirow's description of a developmentally advanced meaning perspective and what would be desirable beliefs and assumptions among teachers. The nexus between these two would be teacher education programs, including in-service professional development. Since teacher education programs are technically adult learning opportunities, then it would be important to find many of the activities and processes of transformative learning embedded in schools of education's curriculums, philosophies, and strategies. If not program-wide, then at least present among teacher educators within the programs. Certainly, Raths' (2000) essay makes this point when he states that "teacher education programs, with their emphasis on methods, are largely ineffective in improving current teaching practice" (p. 385). (This is what is meant by instrumental learning, as defined and discussed below.) He explores ways teacher educators can change some of the beliefs of teachers and teacher candidates early in a program so as to optimize the impact of learning new teaching practices (Raths, 2000).

Transformation Theory and Transformative Learning

Transformation Theory (also referred to as Transformative Learning Theory in the literature) seeks to explain the way that adult learning is structured and to determine how the frames of reference (meaning perspectives) through which we interpret our experience get transformed (Mezirow, 1991). It focuses on how we learn to act on our own thoughts, feelings, beliefs and assumptions rather than those we have uncritically assimilated from others to "gain greater control over our lives as socially responsible,

clear-thinking decision makers” (Mezirow & Associates, 2000, p. 8). Embedded in that theory is the process known as transformative learning, which has both individual and social dimensions.

Perspective transformation refers to the way in which we transform a problematic frame of reference to make it more dependable in our adult life by generating opinions and interpretations that are more justified. To transform a frame of reference (or perspective) requires moving both the habits of mind and points of view (see Figure 2). Transformation Theory seeks to explain this transformation during the learning process (Mezirow & Associates, 2000). To Mezirow (1991), this is the foundation of adult learning, which concerns itself with the process of “justifying or validating communicated ideas and the presuppositions of prior learning” (p. 5).

Adult learning, democracy and transformation. Transformation Theory embodies the spirit and goals of democracy and social justice. In fact, Mezirow & Associates (2000) write that:

There is a reciprocity between democratic theory and Transformation Theory ... Transformation Theory suggests that transformative learning inherently creates understandings for democracy by developing capacities of critical reflection on taken-for-granted assumptions that support contested points of view and participation in discourse that reduces fractional threats to rights and pluralism, conflict, and the use of power, and foster autonomy, self-development and self-governance – the values that rights and freedoms presumably are designed to protect (p. 28).

The link between the concept of democratic theory and transformation theory is most clearly articulated through the empowerment and equity goals of adult education. Mezirow & Associates (2000) write that there are obvious inequities in the social structure reflecting asymmetrical power relationships and perpetuating inequalities that affect the way in which one understands experience. Adult learners need to become

critically aware of how these factors shaped their thinking processes and beliefs so that they can take collective action to offset them.

Warren (1992 as cited in Mezirow & Associates, 2000) contends that democracies inherently create opportunities for transformation. He writes: “Were individuals more broadly empowered, especially in the institutions that have most impact on their everyday lives (workplaces, schools, local governments, etc.), their experiences would have transformative effects: they would become more public spirited, more tolerant, more knowledgeable, more attentive to the interests of others and more probing of their own interests” (p. 8).

Beyond the social justice aspect to transformative learning are the practical considerations of one’s responsibilities and ways of being as a member of a democratic society. As Mezirow (1997) writes: “Thinking as an autonomous and responsible agent is essential for full citizenship in democracy and for moral decision making in situations of rapid change” (p. 7).

Cranton (2006) suggests that this learner empowerment can be promoted by educators of adults in four ways: by becoming conscious of power relations in their practice; by exercising power in responsible and meaningful ways; by helping learners exercise power through and in discourse; and by encouraging learner decision making. This empowerment is fundamentally related to the process of changing one’s frame of reference. Fostering these liberating conditions for making more autonomous choices, decisions and judgments and developing a sense of self-empowerment is one of the central goals of adult education (Mezirow & Associates, 2000). According to Siegal (1990 as cited in Mezirow & Associates, 2000) an autonomous choice is one in which the

individual is “free to act and judge independently of external constraints on the basis of her own reasoned appraisal” (p. 54).

The biggest influence on Mezirow with regard to transformative learning’s role in democracy was Paulo Freire. Freire’s *Pedagogy of the Oppressed* (1970) laid out the concept of *conscientization*, which is “learning to perceive social, political, and economic contradictions – developing a critical awareness – so that individuals can take action against the oppressive elements of reality” (Freire, 1970, p. 19).

It bears noting here that Freire’s *conscientization* is the key to educators creating a democratic classroom that can facilitate students’ progression towards autonomy (Freire, 1973 as cited in Kitchenham, 2008). Autonomy refers to the skills, abilities and proclivities to reflect critically on one’s own assumptions through engagement in critical discourse.

This discourse enables one to validate or invalidate one’s own beliefs through the experiences and perceptions of others (Mezirow, 1997). In other words, to walk a mile in others’ shoes thereby gaining a broader awareness of the various ways of understanding and interacting with the world.

The process of achieving this autonomy has to do with assessing reasons supporting ones beliefs, which involves becoming critically reflective on their assumptions, beliefs, values and making a decision to act on these critical insights (Mezirow & Associates, 2000). Hence, two major elements of transformative learning are critical self-reflection in which one critically examines and challenges deeply held beliefs and assumption and critical discourse in which dialogue is devoted to assessing

reasons presented in support of competing interpretations (Mezirow, 1997; Kitchenham, 2008; Taylor, 2007; Merriam, 2004).

Instrumental and communicative learning. Foundational to Transformation Theory are the concepts of instrumental and communicative learning in problem solving, which Mezirow borrowed from Jürgen Habermas (1984). These concepts are important to the discussion of transformative learning and adult education because frequently instrumental learning is what is received when communicative learning is really what is needed. One of the challenges to adult learning becoming the liberating and empowering force that these researchers write about is the medium's default to instrumental learning (Mezirow, 1991; Mezirow & Associates, 2000; Kitchenham, 2008; Cranton, 2006).

Instrumental learning concerns itself with cause-effect relations and learning through task-oriented problem solving. In other words, meaning is acquired in task-oriented problem solving by testing a hypothetical meaning scheme that will best help us manipulate or control the environment or other people to enhance efficacy in improving performance. It always involves a prediction about observable things or events and the truth of an assertion may be established through empirical testing (Mezirow, 1991; Kitchenham, 2008). This is the traditional training and skill development model of adult education (Mezirow, 1997).

Communicative learning, which is more closely linked to the autonomy goals of adult education, involves at least two persons working and negotiating to arrive at an understanding of the meaning of an interpretation or the justification for a belief. It is consensus building and involves understanding purposes, values, beliefs and feelings and does not lend itself to empirical testing. In communicative learning, it "becomes

essential for learners to become critically reflective of the assumptions underlying intentions, values, beliefs and feelings” (Mezirow, 1997, p. 6).

Frames of reference/meaning perspectives framework. Perspective transformation is: “the process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrative perspective; and, finally, making choices or otherwise acting upon these new understandings” (Mezirow, 1991, p. 167). It is synonymous with transforming a problematic frame of reference and is the goal of transformative learning.

Bruner (1996 as cited in Mezirow & Associates, 2000) identifies four modes of making meaning that are fundamental to learning: 1) establishing, shaping and maintaining intersubjectivity; 2) relating events, utterances, and behavior to the action taken; 3) construing of particulars in a normative context (e.g. standards, obligations, conforming behavior and deviant behavior); and 4) making theoretical propositions. Transformation Theory adds a fifth mode of making meaning: “becoming critically aware of one’s own tacit assumptions and expectations and those of others and assessing their relevance for making an interpretation” (p. 4).

Before we can explore the ways in which this perspective transformation occurs through transformative learning (or adult education), we first need to understand how Mezirow defines meaning perspective and all of its attendant dimensions. The frame of reference (also known as a meaning perspective) is the cognitive mechanism through which meaning is construed and all learning takes place and, hence, is the target of

perspective transformation. These meaning perspectives are comprised of meaning schemes, which are the “constellation of concept, belief, judgment, and feeling which shapes a particular interpretation” (Mezirow, 1994, p. 223 as cited in Kitchenham, 2008). These constitute codes that govern our acts of perceiving, comprehending and remembering, which all get objectified through speech (Mezirow, 1991).

Mezirow contends that there are three types of meaning perspectives: epistemic (related to the use of knowledge), sociolinguistic (related to the use of language in social settings), and psychological (related to the way people view themselves). In order to “fix” any of these distorted perspectives or frames of reference, one must undergo the phases of transformative learning (Kitchenham, 2008). By distorted, Mezirow (1991) means frames of references that are uncritically assimilated presuppositions that obfuscate our ways of knowing, believing and feeling. These distortions diminish our awareness of how things really are in order to “avoid anxiety, creating a zone of blocked attention and self-deception. Overcoming limited, distorted, and arbitrarily selective modes of perception and cognition through reflection on assumptions that formerly have been accepted uncritically is central to development in adulthood” (Mezirow, 1991, p. 5).

Our frames of reference often represent cultural paradigms (collectively held frames of reference) and are composed of two dimensions, a habit of mind and resulting points of view (Mezirow & Associates, 2000). Figure 2 illustrates Mezirow’s Frame of Reference. Mezirow & Associates (2000) define a habit of mind as a set of assumptions that are “broad, generalized, orienting predispositions that act as a filter for interpreting the meaning of experience” (p.18).

A habit of mind becomes expressed as point of view, which comprises clusters of meaning schemes that affect how we judge, typify objects, and attribute causality. Taken together as our frame of reference or meaning perspective, habits of mind provide a course of action that we tend to follow and a set of interpretations we tend to adopt automatically unless brought into critical reflection (Mezirow & Associates, 2000). Mezirow's theory of transformative learning identifies four types of learning: elaborating existing frames of reference; learning new frames of reference; transforming habits of mind; and transforming points of view (as cited in Kitchenham, 2008). These types of learning all contribute to perspective transformation.

Key Elements of the Perspective Transformation Process

As outlined previously (see Table 1), Mezirow theorizes that perspective transformation occurs in 10 phases. These phases are not necessarily linear or sequential. Nor is it necessary that one experience all 10 phases to experience a perspective transformation (Mezirow, 1991; Kitchenham, 2008). However, if everything regresses to the mean, then these phases are the "mean" for the perspective transformation process.

Disorienting dilemma. This element of transformative learning is the focus of this study. When our meaning schemes are inadequate to explain an experience or new piece of information, then our response is generally anxiety followed by a need to resolve the dissonance between our beliefs and assumptions and the disquieting entity (Mezirow, 1991). This is the beginning of the perspective transformation. According to Mezirow (1991), the whole process of perspective transformation (See Table 1) begins with the disorienting dilemma and proceeds through the subsequent nine phases of transformative

learning. The disorienting dilemma is key to the transformative learning process. Without it, perspective transformation is unlikely (Mezirow, 1991; Kitchenham, 2008).

This dilemma creates a cognitive dissonance within the learner. According to cognitive dissonance theory, when faced with new information that conflicts with our established beliefs or values, we seek to reconcile the dissonance. These responses fall “somewhere along a continuum on which each point represents a strategy for returning our consciousness into cognitive balance ... at one end of the continuum is acceptance of the new idea or framework ... at the other end of the continuum is the employment of intellectual armor” (Gorski, 2009, p. 54).

The disorienting dilemma can either be the result of an epochal event, such as a death, illness or other major life occurrence. Or, it can be the result of experiences had and knowledge accrued over a period of time (Mezirow, 1991; Cranton, 2006; Kitchenham, 2008; Brock, 2010; Herbers & Nelson, 2009; Baumgartner, 2001; Imel, 1998). Cranton (2006) enumerates different types of events that can stimulate critical reflection:

- Being confronted with knowledge that contradicts accepted knowledge, especially knowledge we received from a respected authority;
- Exposure to social norms different from our own deeply held norms;
- Life crises, such as a loved one dying, a marriage breaking up. Or, positive changes such as promotion, retirement can all challenge individuals to reassess their beliefs, assumptions values, etc. (p. 62-63).

Clark & Wilson (1991 as cited in Herbers & Nelson, 2009) describe this initiating step in a slightly different way by identifying two types of these initiating events: disorienting dilemma AND an integrating circumstance. The disorienting dilemma can be abrupt and painful and is externally driven. The integrating circumstance on the other

hand is internally driven, an event that “provides a missing and yet sought-after piece in the person’s life” (p. 79). The integrating circumstance clarifies past experience and leads to greater depth of understanding. However, Clark & Wilson (1991 as cited in Herbers & Nelson, 2009) recognized that both types can be orienting as well as disorienting and both result in the restructuring of meaning and personal transformation.

Taylor (2000) states that, “A recent characteristic discovered of a triggering event is that it is less a singular significant experience and more a long cumulative process” (p. 300). Taylor (2000) goes on to wonder why some disorienting dilemmas lead to a perspective transformation and others do not? He posits that contextual factors (or socio-cultural distortions) may be the mitigating element in the process.

In fact, previous research has identified both personal and socio-cultural contextual factors as significant factors in transformative learning. In Taylor’s 2007 critical review of the empirical research on Transformation Theory, he noted that there was a growing body of research on the role of context in transformative learning. In some cases (Courtenay, B., Merriam, S.B., Reeves, P., & Baumgartner, L., 2000; Baumgartner, 2002; King, 2000; Lyon, 2001 all as cited in Taylor, 2007), the research showed that the perspective transformations experienced were a product of the contexts in which they occurred. Taylor’s (2000) analysis of the research on Transformative Learning Theory states:

Despite this more in-depth research on the catalysts of transformative learning, there is little understanding of why some disorienting dilemmas lead to a perspective transformation and others do not. What factors contribute to or inhibit this triggering process? Why do some significant events, such as death of a loved one or personal injury, not always lead to a perspective transformation where as seemingly minor events, such as a brief encounter or a lecture sometimes do? (p. 300).

In this current study, the bulk of the participants experienced the Common Beliefs Survey in an online context, so contextual factors will be discussed in greater detail later on, especially as they relate to participants' responses. But, suffice it to say, participants in the same online contexts experienced a range of responses to the CBS from indifference to disorienting dilemma. This range of differences comports with other research by Clevinger (1993 as cited in Herbers & Nelson, 2009) and Donnelly (2001 as cited in Herbers & Nelson, 2009), in which participants experiencing very similar incidents but had very different reactions. Clevinger (1993 as cited in Herbers & Nelson, 2009) concluded that the disorienting dilemma might be a concept more complex than Mezirow originally suggested. He further argues that the variation in experiences could be influenced by individuals' variable attributes such as age, gender, personality, occupation, education, family, culture, socioeconomic status, and religion.

Clevinger (1993 as cited in Herbers & Nelson, 2009) concludes that the crisis event experienced by participants becomes a disorienting dilemma only when the meaning perspective through which they interpret the situation becomes dysfunctional.

Merriam and Clark (1992 as cited in Merriam and Caffarella, 1999) observed that:

More learning happens in periods that people perceive as good versus bad times. Yet although nearly ten times more significant learning occurred in the good times than in the bad, learning that is more likely to be transformative occurred in the bad times. In other words, the more difficult the transition is perceived to be by learners, the more potential this transition may have for learning, and especially for changing how learners see themselves and their world (pp. 107-08).

This study, which looks closely at participants' experiences with the Common Beliefs Survey in an effort to detect and describe disorienting dilemmas. To do, so participants completed King's (1998) Learning Activities Survey online and then completed an in-depth phone interview that inquired about the likely variables that might

contribute to experiencing a disorienting dilemma (facilitation, content, personal attributes, context). King's survey was originally developed for use in higher education settings and has been psychometrically validated in development and application. It relies on the interpretation of answers to multiple questions in order to determine whether respondents experience perspective transformation (King, 2004). While the focus of this study is the disorienting dilemma, King's survey includes indicators for each phase of transformative learning, including the disorienting dilemma. Given the validation of the Survey along all dimensions of transformative learning, the portion that speaks to disorienting dilemmas is appropriate for this study's purposes.

Critical reflection. Critical reflection, especially critical self-reflection is a foundational activity for transformative learning and is a required learning condition (Mezirow, 1991, 1997; Cranton, 2002; Kitchenham, 2008; Brookfield, 1997; Taylor, 2007; Zieghan, 2001; Howard, 2003; Merriam, 2004; Grabov, 1997). Mezirow & Associates (2000) identifies two ways in which reframing can occur – objective or subjective. Objective reframing involves “critical reflection on the assumptions of others encountered in a narrative or in task-oriented problem solving” (Mezirow & Associates, 2000, p. 23). Subjective reframing involves critical self-reflection of one's own assumptions about:

- A narrative – applying a reflective insight from someone else's narrative to one's own experience;
- A system – economic, cultural, political, education, communal, or other;
- An organization or workplace;
- Feelings and interpersonal relations; and/or
- The way one learns, including one's own frames of reference, per se, in some adult education programs (Mezirow & Associates, 2000, p. 23).

Common to both of these types of reframing is critical self-reflection. Critical self-reflection in the context of adult education focuses on an “infinitely wider range of concepts and their accompanying cognitive, affective and conative dimensions” (Mezirow & Associates, 2000, p. 23). As listed in Figure 1, critical self-reflection is also identified in the literature as one of the interventions identified in the literature for changing teacher beliefs and practices (Banks, 1995; Gay & Kirkland, 2003; Guerra & Nelson, 2009; Love & Kruger, 2005; Kagan, 1992; Webb, 2001).

Mezirow identifies three types of reflection that are related to problem-solving: content, process and premise. Reflection on content focuses on physical clues; reflection on process might lead us to assess our level of effort to find important clues in order to improve our performance at similar types of problem solving; and reflection on the premise of the problem leads us to question of the merit and relevance of the problem to be solved (Mezirow, 1991; Kitchenham, 2008; Merriam, 2004). To facilitate learning, especially adult learning, it is important to differentiate among the three types of reflection (content, process and premise) and the two types of learning (instrumental and communicative) in order to design appropriate educational experiences for learners (Mezirow, 1991; Kitchenham, 2008).

Content and process reflection are activated much more frequently than premise reflection because they are most closely related to the nonreflective activities we undertake everyday to solve problems (e.g. balancing a checkbook) or thoughtful action (e.g. making judgments about political candidates). Neither of these requires validity testing of assumptions that go into the actions. These are dynamics by which our beliefs (or meaning schemes) are changed, that is “become reinforced, elaborated, created,

negated, confirmed, or identified as problems (problematized) and transformed” (Mezirow, 1991, p. 111). According to Kitchenham’s (2008) interpretation of Mezirow, there are two types of transformation: “straightforward transformation of a meaning scheme, which occurs through content and process reflection, and a much more profound transformation of a set of meaning schemes (i.e., meaning perspective)” (p. 115).

Premise reflection, however, is the dynamic by which our belief systems (or meaning perspectives) become transformed. Transformation occurs when assumptions through premise reflection are found to be “distorting, inauthentic, or otherwise unjustified. Transformative learning results in new or transformed meaning schemes or perspective transformation” (Mezirow, 1991, p. 111). Figure 4 from Kitchenham (2008) illustrates the relationship between reflection types and transformation.

Reflective discourse/relationships. In the process of transformative learning, critical reflection is enacted in part through critical discourse. Through this discourse, participants are able to “try on” the perspectives of others and adapt their communication to one another’s perspective (Cranton, 2006). Rational or reflective discourse is

That specialized use of dialogue devoted to searching for a common understanding and assessment of the justification of an interpretation or belief. This involves assessing reasons advanced by weighing the supporting evidence and arguments and by examining alternative perspectives. Reflective discourse involves a critical assessment of assumptions. It leads toward a clearer understanding by tapping collective experience to arrive at a tentative best judgment (Mezirow & Associates, 2000, pp. 10-11).

As stated earlier, adult education is frequently conflated with instrumental learning because adult learners’ immediate needs are often practical, short term objectives (e.g. be able to qualify for a driver’s license, get a job or promotion, meet the needs of a family member) (Mezirow, 1997). Mezirow (1997) posits, however, that adult

education should be as concerned with communicative learning needs of students as it is with the instrumental need because there is an “egregious assumption that the acquisition of knowledge or attainment of competencies will somehow automatically generate the understandings, skills, and dispositions involved in learning to think autonomously ... there are different processes of learning involved with different forms of appropriate educational intervention” (p. 9).

To help people learn to achieve specific short-term objectives involves instrumental learning, but to help them achieve their goals requires communicative learning (Mezirow, 1997). And, this entails making discourse a primary strategy in this context. The more interpretations that are available for consideration, the more likely that a more dependable interpretation or synthesis of interpretations will be adopted. This is a nod to Mezirow’s assertion that learning and knowledge development is a social process (Taylor, 2000; Baumgartner, 2001).

What is more, reflective discourse (as well as critical self-reflection) requires a mature level of cognitive development and emotional maturity (Merriam, 2004; Taylor, 2007). Mezirow & Associates (2000) write: “Effective participation in discourse and in transformative learning requires emotional maturity Knowing and managing one’s emotions, motivating oneself, recognizing emotions in others and handling relationships – as well as clear thinking” (p. 11). These are among the critiques of Mezirow’s transformative learning theory that will be discussed later.

Mezirow (1991) identifies a series of conditions that are necessary for learners to engage in reflective discourse that are listed in Table 2. Participation in reflective discourse under these albeit ideal conditions will aid adult learners in becoming critically

self-reflective of their meaning perspectives and arrive at the more developmentally advanced meaning perspective outlined at the beginning of the Transformative Learning section (Mezirow, 1991). Gould (2002 as cited in Herbers & Nelson, 2009) writes that this discourse must be ongoing and includes activities to keep individuals' critical self-reflection going throughout the transformation process. Robertson (1997 as cited in Herbers & Nelson, 2009) sums up this connection between critical self-reflection and discourse in the transformation process when he says, "... the key to the learner's accepting the loss of a familiar paradigm is his or her opportunity to process the loss" (p. 112).

Logical correlates to the role of discourse in perspective transformation are the tandem roles of relationships and trust. (Trust will be discussed in more detail in the sections on facilitating transformative learning and study findings.) Recent research on perspective transformation has noted the importance of relationships in the transformational learning process (Taylor, 2000, 2007; Baumgartner, 2001; Kitchenham, 2008; King, 1998, 2004). The existing research paints a picture of complexity about these relationships (Taylor, 2007). The relationship aspects of Mezirow's Transformation Theory are underdeveloped, but research indicates that the more subjective elements of relationships (trust, friendship, support) are essential for effective rational discourse and the whole of perspective transformation (Taylor, 2000).

Taylor (2000) identified several different conceptions of relational ways of knowing in the research: modeling; interpersonal support; social support; family connections; networking; learning-in-relationship; friendships; and developing trust. In essence, Taylor writes, "it is through establishing trustful relationships that individuals

can have questioning discussions wherein information can be shared openly and mutual and consensual understanding be achieved” (p. 307).

Identifying the importance of relationships in transformative learning and perspective transformation, King’s (1998, 2004, 2009) Learning Activities Survey that was developed to detect perspective transformations devotes a segment of the survey to gathering data on the impact of relationships on participants’ transformative experiences. In her 2004 study, King used her Survey to study the perspective transformations of business school students. Across a four-year period of time, King (2004) found that 72% of her 58 participants indicated that a person influenced their perspective transformations and that a majority of the persons identified as being influential were in the educational setting (e.g. professor, classmate, advisor, etc.). “In short, transformational learning is not an independent act but is an interdependent relationship built on trust” (Baumgartner, 2001).

Facilitating Transformative Learning for Perspective Transformation

The cardinal goal of adult education for Mezirow (1991) is that of “helping learners learn what they want to learn and at the same time acquire more developmentally advanced meaning perspectives” (p. 199). This, in essence, makes the role of adult educator a balancing act, which is captured in Mezirow’s goals for adult educators (see Appendix D).

In adult learning, new information (e.g. content information, steps in a process, etc.) is filtered through existing meaning schemes, as well as students’ meaning perspectives and this often distorts the way a student learns (Mezirow, 1991). So, an adult educator must actively encourage critical self-reflection and discourse through

which the learner can examine their meaning schemes and perspectives while simultaneously focusing on the new data being presented (Mezirow, 1991).

To achieve this delicate balance, Mezirow identifies a number of learner and learning conditions that need to be in place to foster transformative learning through critical reflection and discourse. It is incumbent upon adult educators to create learning environments in which “the conditions of social democracy necessary for transformative learning are fostered. This involves blocking out power relationships engendered in the structure of communication, including those traditionally existing between teachers and learners” (Mezirow & Associates, 2000, p. 31). This requirement necessarily makes the role of the primary educator in transformative learning that of facilitator of a co-directed process. Such facilitation includes responding within a context of respect and acceptance to the needs of the learners, facilitates a meaningful group process, building trusting relationships with learners, and challenging learners’ assumptions and beliefs (Cranton, 2006).

The role of trust in transformative learning is key due to the naturally occurring power dynamics in any teaching-learning situation. The literature on adult education emphasizes the empowerment of the learner, which necessitates the educator giving up power to accomplish this. The role of facilitator in adult education runs contrary to the traditional role of educator as authoritarian expert who delivers content and evaluation (Cranton, 2006).

Mezirow (1991) writes that because educators can “anticipate the intrusion of unequal status and thus the potential influence among those involved in discursive communities, they can, and should, plan intentionally to counter the effects of this

intrusion on critical discourse in educational settings” (p. 207). Therefore, facilitating transformative learning with this power dynamic in mind requires facilitators to create an environment of trust through the establishment and enforcement of norms of participation for the learning community that embody the ideal conditions for learning/critical discourse discussed earlier (Mezirow, 1991).

One of the ways that educators can create these conditions is through their own authenticity. Cranton (2006) defines an authentic educator as one who: has a good understanding of him/herself; brings that understanding into teaching; is understanding and relates in a meaningful way with the learners; is aware of the context of teaching; and engages in critical reflection on his/her practice. Not only does this create a better learning environment and connection with students, it also models the transformative process (Cranton, 2006).

The role of trust and relationships in transformative learning is also important because the transformative process is so difficult, emotionally charged, and fraught with potentially harmful power dynamics (Robertson, 1996; Baumgartner, 2001; Cranton, 2006; Kitchenham, 2008). Robertson (1996) recognized the importance of teacher-learner relationships embodying trust and caring in order to create the right conditions for transformational learning experiences. Robertson (1996) also recognized that many adult educators are unprepared to “manage the dynamics of helping relationships or the dynamics of transformative learning within the context of those relationships” (pp. 43-44).

However, Cranton (2006) writes, “trust, respect, openness and genuine caring for the learner are key ingredients in providing support and assistance for those who are

struggling with a transformative experience” (p. 171). She goes on to recommend that facilitators help students develop and implement action plans that will assist them through their perspective transformation (Cranton, 2006). Examples of this by teacher educators in this study are discussed in Chapter 4.

Facilitating transformative learning is not without its own ethical issues and considerations. And, as Robertson (1996) states, many adult educators are not prepared to manage the dynamics of the transformative process. This raises the question, “What are some ethical considerations when facilitating transformative learning? How do I address these considerations when working with students?”

Perhaps one of the biggest ethical considerations in transformative learning, especially perspective transformation, is what responsibility does the facilitator have for the pain and discomfort of his/her learners, as well as his/her personal and professional growth and success (Merriam and Caffarella, 1999)? There does not appear to be consensus around an answer around this question in the literature. Cranton (2006), however, probably best sums up the preferred ethical approach to adult education: “Perhaps most important, educators should reflect continually on their practice, examining the influence they have on learners and questioning the nature of that influence. Anything less fails to provide support and may be unethical” (p. 175).

The Origins of Transformative Learning

How did Mezirow develop his Transformation Theory? What was foundational to the concept? Mezirow first applied the term *transformation* in his seminal 1978 study about women returning to either the workforce or education after extended times out. His study was conducted in an effort to understand their needs as they re-entered these

environments. He studied twelve re-entry programs for women with a total of 83 research subjects. In conjunction with that study, he also conducted a nationwide phone and mail-in survey among other re-entry programs for women. On the basis of his findings, Mezirow and his team concluded that the respondents had undergone a “personal transformation.” Out of this finding grew Mezirow’s 10 phases of transformative learning (Mezirow, 1991; Kitchenham, 2008) found in Table 1.

Mezirow further developed his theory with influences from Kuhn’s (1962) scientific philosophical paradigm, Freire’s (1970) *conscientization*, and Habermas’ (1991) domains of learning. Table 3 by Kitchenham (2008) shows which element of transformative learning was influence by which scholar.

Thomas Kuhn. Thomas Kuhn (1922-1996) became one of the most influential philosophers of science of the twentieth century, perhaps the most influential, his *The Structure of Scientific Revolutions* (1962) is one of the most cited academic books of all time. His contribution to the philosophy of science marked not only a break with several key positivist doctrines but also inaugurated a new style of philosophy of science that brought it much closer to the history of science. His account of the development of science held that science enjoys periods of stable growth punctuated by revisionary revolutions, to which he added the controversial ‘incommensurability thesis,’ which posits that theories from differing periods suffer from certain deep kinds of failure of comparability (retrieved from <http://plato.stanford.edu/entries/thomas-kuhn/> on November 14, 2010).

Kuhn’s (1962) concept of paradigms in scientific inquiry influenced Mezirow’s thinking about how to theoretically structure the process of transformative learning.

Kuhn was working through the problem of how to help the research community work from a base of common knowledge and beliefs. According to Kuhn (1962), the community needed to develop a set of “universally recognized scientific achievements that for a period of time provide model problems and solutions to a community of practitioners” (Kuhn, 1962, para. 77). Mezirow borrowed this model for his frame of reference concept: scientific discovery that was unprecedented enough to attract a group of researchers away from their other interests (i.e., a set of meaning schemes), but that was open-ended enough that there would still be problems to be solved or redefined by scientists (i.e., a meaning perspective) (Kitchenham, 2008).

Paulo Freire. Paulo Freire (1921 - 1997) was a Brazilian educationalist who advanced the connection between educational practice and liberation through his seminal work *Pedagogy of the Oppressed* (1970). Freire uses the analogy of banking as a descriptor for education that is controlled by the “oppressors.” The oppressors are solely focused on making “deposits” of information into the mind banks of the oppressed. The information deposited advances the goals and strategies of the oppressor, so critical thinking and discourse are neither taught nor encouraged. The student is totally dependent on the teacher: “The more students work at storing the deposits entrusted to them, the less they develop the critical consciousness which would result from their intervention in the world as transformers of the world” (Freire, 1970, p. 60).

Freire (1970) advanced the concept of *conscientization* that sought to counteract this dependence. He defined *conscientization* as “learning to perceive social, political, and economic contradictions – developing a critical awareness – so that individuals can take action against the oppressive elements of reality” (p. 107). These notions of critical

awareness and autonomy of thought map directly to the goals of adult learning and perspective transformation as articulated by Mezirow (1991; Kitchenham, 2008; Brookfield, 1997; Herbers & Nelson, 2009).

Jürgen Habermas. Jürgen Habermas (1929 -), through the course of his writings, has worked to develop a theory of knowledge that is comprehensive enough to encompass science, morality and art (Cranton, 1996). One of the results of this endeavor is his concept of three types of knowledge: instrumental, communicative and emancipatory. While Habermas viewed all three types of knowledge valid, he criticized the pervasive application of instrumental knowledge to inappropriate areas (e.g. making instrumental knowledge the primary focus of education to the exclusion of communicative and emancipator knowledge) (Cranton, 1996).

Habermas' primary contributions to Mezirow's theory are his constructs for domains of knowledge – technical (learning that is rote, specific to tasks), practical (learning social norms of communication and interpersonal connection) and emancipator (introspective reflection that leads to self-knowledge). These domains eventually morphed into the two domains of learning Mezirow used to develop his Transformation Theory – instrumental and communicative -- and provided the foundation for his concepts of perspective transformation, meaning schemes, and meaning perspectives (Kitchenham, 2008).

Transformation Theory Alternatives

Although Mezirow's Transformation Theory is currently recognized as the most influential theory in the field of adult education, there are several other theories that also populate this landscape. There are also several substantial criticisms about Mezirow's

theory that are embraced even by practitioners of transformative learning. Two other models that are considered on par with transformative learning in the field of adult education. They are andragogy and self-directed learning.

Andragogy. The concept of *andragogy* was introduced to the United States in 1968 by Malcolm Knowles and means “the art and science of helping adults learn” (Merriam & Caffarella, 1999, p. 272). This theory focuses on the adult learner and his or her life situation and is in contrast to pedagogy, which focuses on helping children learn (Merriam & Caffarella, 1999).

The five assumptions upon which Knowles based his theory are:

1. As a person matures, his or her self-concept moves from that of a dependent personality toward one of a self-directing human being.
2. An adult accumulates a growing reservoir of experience, which is a rich resource for learning.
3. The readiness of an adult to learn is closely related to the developmental tasks of his or her social role.
4. There is a change in time perspective as people mature – from future application of knowledge to immediacy of application. Thus, an adult is more problem-centered than subject-centered in learning.
5. Adults are motivated to learn by internal factors rather than external ones (Knowles, 1980, pp. 44-45, as cited in Merriam & Caffarella, 1999).

The primary criticisms of andragogy are: that it is unclear as to whether it is truly a theory with the explanatory and predictive functions that are usually associated with theories (Davenport & Davenport, 1985 as cited in Merriam & Caffarella, 1999); Knowles’ claims that andragogy characterized adult learning only may not hold true (Merriam & Caffarella, 1999); and that “Knowles never proceeded to an in-depth consideration of the organizational and social impediments to adult learning ... He chose the mechanistic over the meaningful” (Grace, 1996b, p. 391 as cited in Merriam & Caffarella, 1999).

Despite this harsh criticism, andragogy is still seen as a useful tool by adult education practitioners because it helps provide a better understanding of adults as learners (Merriam & Caffarella, 1999).

Self-directed learning. The goals of self-directed learning can be grouped into “three major aims: (1) to enhance the ability of adult learners to be self-directed in their learning, (2) to foster transformational learning as central to self-directed learning, and (3) to promote emancipatory learning and social action as an integral part of self-directed learning” (p. 290; Merriam & Caffarella, 1999).

There are two dimensions to self-directed learning – self-directed learning as a process and as a set of personal attributes (Merriam & Caffarella, 1999). The process models were spun off from a number of models that sought to operationalize it and fell into three categories:

Linear models – learners moved through a series of steps to reach their learning goals in a self-directed manner (Tough, 1971; Knowles, 1975 as cited in Merriam & Caffarella, 1999)

Interactive models – the learning process is not so well planned out or linear. Instead, the emphasis is on two or more factors, such as the characteristics of learners, the learning context, and cognitive processes (Merriam & Caffarella, 1999).

Instructional models – this category represents frameworks for instructors to use to integrate self-directed learning into their programs and activities (Merriam & Caffarella, 1999).

With regard to self-directed learning as an attribute, the underlying assumption is that learning in adulthood means becoming more self-directed and autonomous (Merriam & Caffarella, 1999). Brockett and Hiemstra (1991 as cited in Merriam & Caffarella, 1999) posited links between learner self-direction, which are defined as learner

characteristics that make them inclined towards taking primary responsibility for their learning, and positive self-concept.

Self-directed learning is a multi-faceted concept that has a broad research agenda attached to it. As a result, research to advance the theory development around this concept has been impeded and has somewhat limited its adoption and implementation.

Even though andragogy and self-directed learning are being positioned as rival theories to transformative learning, the three theories actually share similar characteristics – the drive to create autonomous learners, the reliance upon motivated adult learners, and an emphasis on roles in society.

Critiques of Mezirow’s Transformative Learning Theory

Just as andragogy and self-directed learning have their share of criticisms, so too does Transformation Theory and transformative learning. One of the major criticisms of transformative learning is its emphasis on rationality. Specifically, it ignores the affective, emotional and social context aspects of the learning process (Clark & Wilson, 1991; Lucas, 1994; McDonald, Cervero, & Courtenay, 1999; Taylor, 1994 all as cited in Baumgartner, 2001). Another significant criticism that has been lodged against transformative learning is that the ideal practice for fostering transformative learning is theoretically based and there is little empirical data to support the theory (Deissler, n.d.).

Further, there has been little investigation into “the practice of fostering transformative learning” (Taylor, 2007, p. 174). Taylor’s (2000) review of the research outlines the areas of transformative learning that need more empirical research. These areas include: theoretical comparisons, in-depth component analysis, strategies for fostering transformative learning, and the use of alternative methodological designs.

Another set of criticisms of transformative learning are that there may be a threshold to participation in perspective transformation. “There are ‘preconditions’ of ‘maturity, education, safety, health, economic security, and emotional intelligence’”(Mezirow & Associates, 2000, p. 15). Although there are data missing that would create a more complete picture about what the transformative process looks like, how it is enacted and facilitated, and what the outcomes of the process are, it is a theoretically attractive framework to explore. This is especially true with regard to its possible application to changing teacher beliefs. The CBS provides an excellent opportunity to explore one of the more important aspects of transformative learning, which is the disorienting dilemma.

Teaching Diverse Students Initiative

Launched in late 2007, the Teaching Diverse Students Initiative (TDSI) is a project of the Southern Poverty Law Center (SPLC). The goal of TDSI is to help educators enhance the learning opportunities, especially the quality of teaching, experienced by students of color. TDSI is unique in its focus on how educators can improve their professional skills, understandings, and dispositions that are especially relevant to the race and ethnicity of their students (retrieved from http://www.tolerance.org/tdsi/about_tdsi on November 18, 2010).

TDSi description. TDSI was designed with in-service and pre-service teachers as its primary audience. However, recognizing that educators work within the context of a school, TDSI also provides tools and resources that are useful for principals, school administrators and other education support personnel. According to Jennifer Turner (communication to Willis Hawley, March 29, 2007), the developers wanted to target

White, middle-class, female teachers who constitute the bulk of the teaching force and who “(as a group) have little history with, or current opportunities for, meaningful, cross-group contact. They are thus more likely to hold or develop negative dispositions.”

The Initiative includes a suite of tools to enhance teacher effectiveness and student opportunities to learn, at the center of which are interactive multi-media professional development resources. TDSI places primary emphasis on practices within educators' immediate control — classroom strategies, pedagogical techniques, and school conditions. Within that focus, TDSi also emphasizes strategies that have the potential to reduce bias and prejudice. According to the TDSi website (http://www.tolerance.org/tdsi/about_tdsi), one or more tools might be used to address the specific goals of a workshop, teacher study group, university course, district professional development program, or individual educator.

These tools are accompanied by learning resources that provide knowledge and counsel. Those resources include: video; TDSi-developed text; articles and reports; excerpts from articles and book chapters; learning activities; and references for further study. A list of these resources is included in Appendix E. In addition to these resources, TDSi provides a facilitators'/instructors' guide for each tool. These guides focus on how best to use the tools and resources and include substantive discussion of issues being addressed (see Appendix F).

While the Initiative focuses on improving instruction and student engagement, it recognizes that the learning opportunities experienced by students of color are influenced by school structures and cultures that vary in the extent to which they are responsive to student diversity. Thus, the TDSI helps educators identify the characteristics of schools

that are particularly important in maximizing the social and cognitive development of all students, especially racially and ethnically diverse students

(http://www.tolerance.org/tdsi/about_tdsi). The planning documents for the initiative indicate some alignment between several TDSi tools and suggested activities and the phases of transformative learning (see Table 4).

TDSi developers. SPLC worked with professional associations (e.g., the American Association for Teacher Education and the National Education Association), prominent scholars and expert educators to develop and implement the Initiative. TDSi's development process began with surveys of leading researchers and research literature reviews, which led to the identification of priorities about what educators needed to know and be able to do to improve the learning opportunities of students of color. A team of researchers and expert teachers then developed the tools and resources for the site. (See Appendix G for the development the development team and TDSi advisor group.) There is an on-going process of review and update in place for the site.

How TDSi works. The TDSi developers adopted a theory of action to inform the operationalization of the initiative (see Figure 5). To begin the process, users of TDSi tools and resources are required to register with the site. Users can also register as group leaders so that they can facilitate virtual discussions among groups of users about the content on the site. To date, TDSi has over 7,800 registered users.

The Initiative's online, free resources can be used in several ways to foster teacher expertise and school improvement. Ideally, teachers and teacher candidates and school leaders will use the resources in learning and professional development situations that can

be face-to-face, wholly online, or a mix of on line and face-to-face learning. Among the different ways the Initiative can be implemented are:

- SPLC's Teaching Tolerance materials are read and used online by hundreds of thousands of teachers. Likewise, educators and students will be able to use TDSi's online resources as individuals or with colleagues.
- TDSi can be used by colleges and universities to improve the preparation of teachers and school leaders.
- Schools and school districts can use the resources in professional development activities, including induction programs, and in school improvement efforts (retrieved from http://www.tolerance.org/tdsi/about_tdsi on November 19, 2010).

The teacher educators who participated in this study each used TDSI's tools, primarily the Common Beliefs Survey (CBS), in different ways to facilitate their courses. For instance, some used all of the beliefs in the CBS in their course to enhance the other curriculum resources being used. Others selected among the beliefs to use in their curriculum. Still others built their entire courses around TDSI tools and resources.

Common Beliefs Survey

The Common Beliefs Survey (CBS) tool explores thirteen beliefs (see Appendix H) about instruction “commonly held by many educators that, while sensible and understandable in part, may have unintended negative consequences for students of diverse races and ethnicities” (retrieved from <http://www.tolerance.org/tdsi/asset/common-teacher-beliefs-survey-facilitato> on November 21, 2010). The CBS tool was designed to create an initial “shock” to users much like the disorienting dilemma envisioned in Mezirow’s 10 Phases of Transformative Learning. As written in the facilitator guide for the *Common Beliefs Teacher Tool* (2009), the tool can be used to “motivate further learning by interrupting

participants' assumptions about what they believe and as the basis for exploring the related issues in classes or online" (Facilitator's Guide, p. D-4).

The CBS' primary value is to generate reflection and discussion and develop a greater understanding of complex issues involved with teaching diverse student populations (Facilitator's Guide, 2009). The CBS has two parts. Part I is the survey, in which participants are asked to express their relative agreement or disagreement with a series of common beliefs expressed by teachers about teaching diverse students (see Appendix I). Participants are also asked to explain the thinking behind their responses. These responses are saved. If participants are part of a group, their responses are available to their group leader.

Part II of the survey, *Take a Closer Look*, contains brief explanations of why each particular belief may undermine effective teaching of diverse students (see Appendix J for sample). Participants are encouraged to further reflect on the belief and the explanations provided through a series of questions provided. The goal is to have participants seriously examine their beliefs. Open discussions about the survey items and the implications of the beliefs for teaching can contribute to "shaping a readiness to learn more about how best to meet the needs of racially and ethnically diverse students" (Facilitator's Guide, 2009, p. D-11). This goal is in alignment with Mezirow's process for perspective transformation, which is:

The process of becoming critically aware of how and why our assumptions have come to constrain the way we perceive, understand, and feel about our world; changing these structures of habitual expectation to make possible a more inclusive, discriminating, and integrating perspective; and finally, making choices or otherwise acting upon these new understandings (Mezirow, 1991, p. 167).

These brief explanations are followed by several learning resources that can help participants develop further understanding in that area. The questions after the explanations are designed to cut across the resources presented for each belief. The focus questions help scaffold participants understanding of the resources (Facilitator's Guide, 2009).

The resources in this section vary in terms of format and number for each belief. Formats include video of expert commentary, text of examples of effective practice, written articles or summaries of articles, further learning exercises, and web-based information. A substantial number of the resources are on-point videos clips created specifically for TDSI that feature commentaries by nationally-recognized researchers on topics related to various beliefs. This format poses both opportunity and challenge. As Ramsdell, Rose & Kadera (2006) write about the use of video in online professional development opportunities:

Video commentaries have proved to be a strong vehicle for eliciting additional perspectives that in turn serve as catalysts for online discussions. Although video has proved useful, realizing the potential of this medium as a support for high-quality professional development can be difficult ... this finding may reflect technical challenges associated with using the videos, which are streamed over the Web. Or it may be that additional training and structure are needed to make the videos seem more useful to participants" (p. 79-80).

TDSI provides a Facilitator's Guide for the CBS, which outlines various ways of facilitating students' interactions with the tool. It places heavy emphasis on promoting student reflectivity, which aligns with Mezirow & Associates' (2000) promotion of critical self-reflection in transformative learning, as well as other experts' views about the importance of critical reflection as a practice for teachers (Banks, 1995; Gay & Kirkland, 2003; Guerra & Nelson, 2009; Love & Kruger, 2005; Kagan, 1992; Webb, 2001). For

instance, some teacher educators in this study asked their students to pick several beliefs to do in-depth reflection on. Other educators had students reflect on each of the thirteen beliefs. Study participants who experienced the CBS in an unfacilitated environment were asked to explore a minimum number of resources associated with each belief and reflect on this information. The use of the CBS among study participants will be discussed in the Methodology section.

The Facilitator's Guide advises facilitators to create a trusting climate for robust discussions and to "legitimize" challenges to the explanations and learning resources (Facilitator's Guide, 2009). These advisements are in line with the learning conditions Mezirow identifies as necessary for reflective discourse, which is key to perspective transformation (see Table 2).

As stated earlier, the beliefs in the CBS were selected through a series of interviews with teachers, discussions with TDSI advisors, and reading the relevant research on the beliefs and understandings that influence the behavior of many teachers and school administrators (see Appendix B). Some of these beliefs are based on misinformation or misunderstanding. Knowing that these commonly held beliefs are problematic is the essential first step toward designing instructional practices that are responsive to the needs of ethnically diverse student populations (Facilitator's Guide, 2009).

In the transformative learning framework, the beliefs in the CBS are a kin to meaning schemes. These, individually are susceptible to straightforward transformation through content and process reflection (see Figure 4). They do not necessarily add up to profound transformation of the meaning perspective and the resulting transformation of

assumptions and beliefs (Mezirow, 1991; Mezirow, 1995 as cited in Kitchenham, 2008). As such, the prevalence of straightforward transformation through the CBS is as much as one chance per belief and resource reviewed or as little as one chance per completed CBS experience. The prevalence of profound transformation through the CBS is likely to be as variable due to the complex nature of the perspective transformation process. This complexity will be discussed further in Chapter 4 based on the analytic process described in the following methodology chapter.

The literature on teacher beliefs about teaching diverse students, the need to change those beliefs that are problematic, and the difficulty to do so add up to a call for an approach, process, or intervention that could affect that change. Transformative learning presents itself as an attractive possibility for approaching this challenging task. It is, however, missing data on some of its component parts, including the disorienting dilemma, which is regarded as the “kick start” to the whole process. In order to look at transformative learning’s viability to transform teacher beliefs, this study uses a case study methodology designed around pre- and in-service teachers’ experiences with the Common Beliefs Survey and analyzing them using what is currently known about the disorienting dilemma. The following chapter outlines that methodology.

Chapter Three -- Research Design and Methodology

The research question for this study was: What was the nature of CBS users' disorienting dilemmas? Data for this study was collected using surveys, interviews, and other documents among three segments of participants: teacher educators; their students; and a cohort of education students from a single university. The data was analyzed and the cases for the study were selected from among the cohorts.

The data was analyzed using a validation process that included the Learning Activities Survey (King, 1998); the disorienting dilemma definitions/categories outlined in this chapter; and concepts and indicators from Mezirow's (1991) Transformation Theory. From that data, cases were determined from among student participants to explore further the disorienting dilemma phenomenon. This exploration also included a second case issue (Stake, 2006): What variables may have been associated with participants' disorienting dilemmas?

Rationale for Using Case Study Methodology

The nature of this study's research question necessitate the use of a qualitative research approach such as that described by Corbin & Strauss (2008): "Qualitative research allows researchers to get at the inner experience of participants, to determine how meanings are formed through and in culture, and to discover rather than test variables" (p. 12). Within the broader *milieu* of qualitative research are a number of specific methodologies from which to choose. This present study used a case study methodology to produce thick descriptions of participants' disorienting dilemmas and help to draw out the voice of the participant.

Further, a case study methodology was selected because “case studies are the preferred method when (a) ‘how’ or ‘why’ questions are being posed, (b) the investigator has little control over events, and (c) the focus is on a contemporary phenomenon within a real-life context” (Yin, 2009, p. 2). A multiple-case design will help to make the study’s analytic conclusions stronger than the findings would be using a single-case design (Yin 2009).

Per Stake (2006), another important reason for doing a multi-case study is “to examine how the program or phenomenon performs in different environments” (para. 716). Table 5 shows the data sources for each of the questions in the study.

Participant Selection

Participants included in-service and pre-service teachers who had used the Common Beliefs Survey. The study required a multi-tiered sampling process. Figure 6 illustrates the participant recruitment process for each segment of study participants. Cohorts 1 and 2 were derived from two online teacher education courses that incorporated the CBS. While they are listed as Segment 1 in Figure 6, they were actually recruited after Segment 3 participants because they received their invitation to participate from their instructor who participated in this study. Each participant in Segment 3 invited their students to participate, but only students from two of the teacher educators responded. This was an *a priori* sample.

Cohort 3 (Segment 2) was made up of education students who participated in an unfacilitated experience with the CBS. This cohort was recruited to serve as a quasi-control group around the variable of facilitation. The general call for participation went out to all 120 undergraduate students in one program track in the College of Education at

a large public university. It is a program with which the study's official P.I. has a professional relationship. This was an *ad hoc* sample because the decision to use them was made after the study question was determined.

The 700 registered TDSi users who received an invitation to participate were people who identified themselves as a professor, associate professor or teacher educator in their TDSi registration. This was a subset of the more than 7,800 registered TDSi users and the subset was chosen specifically because they were the most likely registrants to have access to students who had used the CBS in a facilitated context. Each student participant (as well as the teacher educators who participated) signed a consent form and received an honorarium for their participation (See Appendix K for consent form sample). All six teacher educators who participated in this study provided copies of the syllabi for the courses in which they used the Common Beliefs Survey. Each educator was asked about: course information; the learning environment they created for the course; how they used the Common Beliefs Survey in their course(s); and their students' responses to the CBS. Each teacher educator agreed to help recruit their students for participation in the study. Coincidentally, the only students who responded to the call for participants were all from the same two teacher educators' courses. These students made up Cohorts 1 and 2. Therefore, only the data related to these two teacher educators' courses are included in this report.

One of the threats to internal and external validity in this study is the small number of participants, especially among the cohorts of students. Efforts were made to recruit additional student participants into the study after the initial students had completed their participation. However, the use of the teacher educators as

intermediaries between the researcher and the student limited direct access to possible participants from facilitated experiences. Cohort 3 had a number of initial respondents, but few who were able to complete the lengthy resource review log.

It is quite possible that even though recruitment of all segments began in early fall 2010, students' work loads as the semester progressed prevented them from participating, especially among Cohort 3 prospective participants. Nonetheless, the number of student participants from the teacher educators' courses did represent at least 50% of total enrollment in those small courses.

Survey Instruments and Questionnaire

This study used survey instruments and questionnaires to collect demographic data about all participants; to collect data about the way that the Common Beliefs Survey was used in teacher preparation programs; to assess students' experiences with the CBS; to assess dimensions of students' personal attributes; and to determine the existence of a disorienting dilemma among student users. Teacher educators filled out an online background questionnaire (See Appendix L) developed specifically for this investigation. They were also asked whether or not they would be willing to provide contact information for their students so that they may be invited to participate in the study.

Learning Activities Survey. King's (1998) Learning Activities Survey was used to determine the existence of a disorienting dilemma among teacher educators' students related to their exposure to the Common Beliefs Survey and to help identify variables associated with the dilemmas. This survey was embedded in an online survey that also included a background information questionnaire developed specifically for this investigation (see Appendix M). The Learning Activities Survey (LAS) is a

psychometrically validated instrument to identify and analyze perspective transformations in higher education (King, 1998). This means that through rigorous testing, the instrument was shown to have consistent predictive value. The Survey has two major purposes: identifying whether adult learners have had a perspective transformation in relation to an educational experience; and if so, determining what learning activities may have contributed to it.

The survey relies on the interpretation of answers to multiple questions in order to determine whether or not respondents experienced perspective transformation.

According to King (2004):

The four-page survey includes statements that describe the different stages of perspective transformation (including the disorienting dilemma) followed by free-response questions that allow respondents to describe the experiences they consider applicable. The researcher assesses whether respondent had experienced perspective transformation based on responses to these three extensive questions and in comparison to the theory's definition and stages. This assessment allows a multi-dimensional view of respondents' experiences. In addition, there is a series of objective questions with checklists, multiple choice, and fill-in-the-blanks to gather information about demographics and what may have facilitated the participants' transformative learning experiences" (p. 158).

King (2004) also provides interview questions to gather more details and create a multi-dimensional view of respondents' experiences and also help to improve the internal validity of the survey results.

The instrument was developed and piloted by King using a causal-comparative model to discover possible effects of independent variables on a dependent variable (Gall, Borg, & Gall, 1996 as cited in King, 1997). The dependent variable was an indication of a perspective transformation, and the independent variables were "learning

activities: critical thinking activities, class discussions, student self-evaluation, discovering one's voice and support" (King, 1997, p. 27).

King (1997) conducted an extensive pilot study for the LAS in 1996 using a cohort of college students. The participant questionnaires and interviews employed a Likert scale and short answer format to rate how much the facilitating factors promoted students' transformational learning (King, 1997). Her results were reviewed by a panel of five educators and researchers who were experts in the field of transformational learning. King integrated the panelists' recommendations into the final instrument. The panel included: Dr. Steven Brookfield, Dr. Jack Mezirow, Dr. Greg Shaw, Dr. Edward Taylor, and Dr. Kathleen Taylor (King, 1997).

The instrument was further validated using: critical incidents and other free response formats in the pilot study; successive interviews and samples in the pilot studies; the formative adaptation of the instrument through these pilots; and the panel of experts' critique and suggestions (King, 1997).

In subsequent publications, King has urged the use and adaptation of her survey. In fact, in King's (2009) *Handbook of the evolving research of transformative learning: Based on the Learning Activities Survey*, she provides tips and suggestions for adapting her survey for use in further research about adult and transformative learning. Hence, the LAS was adapted for this study.

Student Data Collection Process

In order to get a better understanding of the disorienting dilemma in transformative learning and how the Common Beliefs Survey (CBS) might be associated with or contribute to such an experience, 12 student CBS users volunteered for the study.

The students were from three different cohorts. The three students in Cohort 1 encountered the CBS in Dr. Price's course. Five students in Cohort 2 encountered the CBS in Dr. Brown's course. The four university students in Cohort 3 went through the CBS individually without facilitation beyond receiving a set of written instructions about how to access the CBS and what information to record in their logs.

The cohort of education students who experienced the CBS without any facilitation by teacher educators each completed an online background questionnaire (see Appendix N). After completing the CBS, these students completed a resource review log of the *Taking a Closer Look* resources that followed the discussion of each belief (see Appendix O). They were also asked to register their responses to each of the common beliefs in a log that included overall questions about each belief. They also completed the Learning Activities Survey (King, 1998) (see Appendix P for Survey).

All of the student participants were interviewed at some point after they had completed the CBS. The Cohort 3 interviews were structured similar to the interviews for Cohorts 1 and 2 except that they did not include any questions about facilitation. Instead, these interviews included questions about particular responses in their resource logs.

The interviews were taped and the recordings were sent to an outside firm for transcription. When completed, written transcripts were provided and were re-checked against the interview audio files to correct any errors or omissions. Where excerpts from the interviews are used, any fillers (e.g. "uh", "um", "like", etc.) were removed and replaced with ellipses.

The segments for each student interview in all cohorts included questions about:

- Participants' information/contextualization (e.g. teaching status, academic focus, course name, etc.);
- Specific responses on the LAS;
- Course facilitation and learning environment (except for cohort 3);
- Common beliefs that stood out or impacted their current beliefs;
- Any perspective change experienced and the relationship of that change to the CBS or and/or the course;
- How any change made them feel and how they processed it;
- Specific assignments (if applicable);
- Log responses (if applicable);and
- Personal attributes.

For the most part, the interviews for Cohorts 1 and 2 were similarly structured to facilitate consistent analysis from participant to participant, across cohorts and within cohorts. Interview guides were prepared for each interviewee. (See Appendix Q for sample interview guide.)

Most all participants reported experiencing a disorienting dilemma. The participants' data was analyzed using the process outlined in Table 7 to further validate the authenticity of their disorienting dilemma and to determine participants' inclusion as a case.

Analysis and Validation Using Interview Criteria

According to Mezirow (1991), a disorienting dilemma can be the result of an epochal dilemma or it can be the result of experiences had and knowledge accrued over a period of time. Because not all disorienting dilemmas are the same and because Mezirow's statement lends itself to considering disorienting dilemmas as a continuum, three designations were developed to help categorize participants' experiences with regard to the disorienting dilemma. These designations were built around the range of participants' descriptions of their dilemmas when asked about them in their interviews.

Transcripts of interviews for all students were analyzed for a disorienting dilemma regardless of whether or not they had selected Statement A or B on their LAS because it is possible that the interviews and theory do not corroborate the *absence* of a disorienting dilemma.

Given that a disorienting dilemma can be the result of an epochal event or the accrual of experiences/knowledge gained over time (Mezirow, 1991, 1994; Mezirow & Associates, 2000; Baumgartner, 2001; Imel, 1998; Cranton, 2006; Herbers & Nelson, 2009; Taylor, 2007; Kitchenham, 2008), creating incremental categories was helpful to get a more nuanced assessment of participants' experiences. Also, it is conceivable that a participant's experience with the CBS could initially be less than a disorienting dilemma but then morph into a full-blown disorienting dilemma over the duration of their course (or study-related activities as the case may be). For the purposes of this study, however, participants were assessed based on their status at the time of their interview for the study. The dilemma categories follow.

No disorienting dilemma. Content in the CBS was seen as useful information and the user perceived a need to change or acquire a behavior or technique to improve their practice but did not see any need to question or change any of their fundamental beliefs or assumptions about students and/or teaching. Participants also fell into this dilemma category if they did not view the CBS as useful to them in their teacher preparation or teaching practice. The reflections described by users experiencing this type of dilemma are primarily content and/or process reflections and embody more instrumental than communicative learning.

Possible disorienting dilemma. User had a realization triggered by or at least partly associated with his/her exposure to the CBS content and resources that s/he needed to think about the impacts of their behaviors, practices and/or techniques. This reflection can possibly transition them into a disorienting dilemma because it may uncover the need to see the “larger view of what is operation within his or her value system” (Kitchenham, 2008, p. 114). In addition, the user could also have viewed the content as useful to their practice similar to the “no dilemma” category.

Some of the reflections described by participants who fall into this category may hint at premise reflection, but the preponderance of their reflections are process or content reflections. However, their levels of awareness indicated that there was movement towards premise reflection and communicative learning during their CBS experience, just not to the level of a validated disorienting dilemma.

Validated disorienting dilemma. Regardless of whether the participant’s disorienting dilemma was an epochal event or an accretion of experiences triggered by the CBS, when they were interviewed about their experience, the users’ beliefs, perspectives and assumptions were being deeply challenged. Their existing beliefs, values or assumptions were not sufficient to process the new information they were acquiring whether through the CBS, course work, or experiences in their programs (Mezirow, 1991; Kitchenham, 2008; Herbers & Nelson, 2009). As a result, participants reported being disturbed to the degree that they were motivated to undertake critical self-reflection on their beliefs, assumptions and/or values moving forward.

Participants who fell into this category expressed a larger amount of premise reflection along with experiencing a larger number of ideas and/or experiences that

“shook” them enough to question their beliefs and assumptions. Table 8 lists samples of interview statements that were viewed as indicators of the various types of dilemmas.

Validation Using Transformation and Transformative Learning Indicators

The final validation point was comparison of students’ reported experiences with what Mezirow’s transformative learning theory says about disorienting dilemmas. Once students’ dilemmas were assessed using the interview indicators, their interviews were then assessed using the following Transformation Theory indicators:

- Participant feels their meaning perspective is dysfunctional.
- The realization becomes very difficult for learner mentally and/or emotionally.
- Participant admits the need to deeply re-evaluate their beliefs and assumptions.
- Participant tries to process the disorientation in various ways (e.g. through writing, reading, discourse) (Kitchenham, 2008; Mezirow & Associates, 1990; Mezirow, 1991; King, 1998; Cranton, 2002; Herbers & Nelson, 2009).

If participants’ experiences were validated at least two points (including the theoretical point), then they were put in the validated disorienting dilemma category. If only one indicator was matched or no indicators were matched, then their disorienting dilemmas were deemed not valid with regard to Transformation Theory. Implicit in this analysis was the level of premise reflection versus content and/or process reflection (e.g. at least two statements made indicating this type of reflection). Participants who were deemed cases expressed more premise reflection, which is aligned with communicative learning and perspective transformation.

Participants with validated disorienting dilemmas became cases for the study.

Table 7 lists the steps used to determine cases for the study.

Case Analyses

Each participant's disorienting dilemma was first validated using the process outlined in the previous section. The interviews of participants who were selected as cases for the study were put through further analysis to explore an additional case study issue (Stake, 2006). The case issue of interest was: 1) What variables may have contributed to their disorienting dilemmas including the degree to which the Common Beliefs Survey was a factor?

Case study issues are deeper research questions that help better understand a study's focus, the disorienting dilemma in this study. According to Stake (2006), case study issues reflect complex, situated, problematic relationships. The issues being explored in this study's cases are emic in nature. Following is a description of the phases of further case analysis.

Analysis Phase 1 -- Disorienting dilemma characteristics. Theoretically, the disorienting dilemma can be the result of an external event that causes a sense of internal imbalance. These can be through a sudden, epochal incident or through an accretion of information and experiences that suddenly "click" (Mezirow, 1991; Mezirow, 2000; Imel, 1998; Baumgartner, 2001; Taylor, 2000; Cranton, 2006; Kitchenham, 2008; Herbers & Nelson, 2009). Either way, it is often times painful and perplexing for a person because it challenges their core beliefs and assumptions about themselves and the world around them (Mezirow 1991; Herbers & Nelson, 2009). It sits squarely in the domain of communicative learning. Each participant's validated disorienting dilemma was further analyzed using the following criteria: 1) When did it occur? 2) What did their interaction with the Common Beliefs Survey and related activities have to do with

the experience? 3) How did the dilemma make them feel? 4) What did they do when they had the experience?

Analysis Phase 2 – Demographics, learning environment and participant attributes. Next, participants' demographics, learning environments and personal attributes were analyzed with an eye to understanding their contributions to participants' disorienting dilemmas. This included participants' ages, genders, ethnicities and other descriptive variables. Part of the learning environment analysis, however, only applied to Cohorts 1 and 2 because it looked at the learning environment and facilitation of the courses in which the CBS was used. This did not apply to Cohort 3. This analysis was done with regard to understanding how these factors were associated (or not) with CBS users' experiences and their disorienting dilemmas. As Imel (1998) writes: "Differences in learning contexts, learners, and teachers all affect the experiences of transformative learning" (p. 3). Teacher educators' interviews also informed these analyses. The analyses that looked at participants' attributes and demographics applied to all cohorts as did the CBS content.

Analysis Phase 3 – discussion of cases and other phases of transformative learning. Finally, every student participant was asked to select statements on the Learning Activities Survey (King, 1998) that most reflected their experiences with the Common Beliefs Survey (and the course for Cohorts 1 and 2). Each statement maps back to a different phase of Mezirow's 10 Phases of Transformative Learning (Mezirow, 1991; King, 1998) (see Table 6). According to King (1998), Statements 1. A. and 1. B. are indicators of a disorienting dilemma.

The following chapter discusses each of the cases in detail using these analytic phases. In addition, two discrepant cases are included in the next chapter to provide some illustration of experiences that fall short of being validated disorienting dilemmas. Each cohort of cases in the next chapter are preceded by a description of the context in which they encountered the CBS and some general information about the cohort.

Chapter Four -- Case Studies and Findings

Each of the seven cases in this study is embedded in one of three particular learning cohorts. While each participant will be reported separately, the cohorts will be kept together. Cohort 3 was a loose collection of four undergraduate students, so there was no teacher educator or course description associated with this group. A description of the cohort will precede each set of case write-ups. All of the names of participants have been changed to protect their privacy.

Cohort 1 Description

The participants in Cohort 1 were students in Dr. Price's asynchronous, online course at a small, private parochial college in the Midwest. The course had a total of six graduate students enrolled of which three participated in this study.

Unless otherwise noted, all quotes in this section are taken from the October 19, 2010 interview with Dr. Price. Also, some of the course and assignment descriptions were taken from the syllabus for the Fall 2010 course that Dr. Price provided.

Course information. The course was focused on developing students' "attitudes and actions that promote social justice, equity, and a sense of community resulting in a learning environment where students and their families are valued." The course ran from August 30, 2010 – October 22, 2010.

While the teacher educator of this cohort (Dr. Price) taught an undergraduate course concurrently that used the CBS and was asked to recruit students from both courses, only students from the graduate course responded. All of the graduate cohort members were licensed teachers, but not all of them were currently practicing. All of the students were non-Hispanic Caucasian.

Learning environment. As stated earlier, the role of trust is a key component in transformative learning process due to the ever-present power dynamics in any teaching-learning situation. Facilitating transformative learning being mindful of this power dynamic requires facilitators to create an environment of trust (Mezirow, 1991). When asked about the learning environment created for Cohort 1, Dr. Price reported that he had encouraged his students to “be very open and so there’s a level of trust that we’re trying to work on ... I think there’s a lot of trust and acceptance.”

Dr. Price described his instructional approach to the online course as that of a facilitator who interjected ideas to direct discussions and get students to focus on particular issues. This description was corroborated by his students who participated in the study. For example, when asked to characterize Dr. Price’s facilitation, one student said, “He would step in where he thought ... he needed to or to kind of direct the conversation or, you know, challenge us in a way that we hadn’t gone yet.”

Another learning condition necessary to transformative learning is critical self-reflection (Mezirow, 1991, 1997; Cranton, 2006; Kitchenham, 2008; Brookfield, 1991, 2000b; Taylor, 2007; Zieghan, 2001; Howard, 2003; Merriam, 2004; Grabov, 1997) meaning the questioning of assumptions and perspectives (aka premise reflection). It is a deeper version of critical reflection that is often comprised of reflections on actions behaviors and techniques rather than on beliefs and assumptions. The terms critical reflection and self-reflection are, however, used interchangeably in the literature.

When asked if critical reflection was part of the college’s teacher education program in general and the online course in particular, Dr. Price said that it most definitely was. He further reported that his students in the cohort consistently engaged in

critical reflection as they struggled with the ideas introduced by the Common Beliefs Survey, as well as other assignments in the course: “They’re just completely confused. But, then you’d go forward and they were working through some of that and so I was really pleased that they honestly engaged in critical thinking and reflective thinking.”

When asked about critical reflection in the context of an online course, Dr. Price conveyed that he felt that it was better accomplished than in the face-to-face course he was teaching using CBS. He attributed this to both his students and him being able to take time to reflect on each others’ comments and to think deeply before posting thoughts: “... in a face-to-face conversation, somebody can say something and it’s gone and you don’t have time to follow-up with that comment ... (online) that comment sits there and so we can go back and respond to it and develop.”

When asked specifically how the online format contributed to the learning environment, Dr. Price admitted that he preferred a face-to-face format. However, he fully recognized the contributions the online format can make to the learning experience: “Well, I like a good face-to-face in so many ways because I think it gives us an opportunity to see each other and talk and the discussion can go a little deeper ... but again the online gives me an opportunity probably to talk to every single student or to address more peoples’ ideas than I would in a typical class session. And, so there’re tradeoffs.”

Another dimension of the learning environment associated with Dr. Price’s course was that of the teacher education department. The syllabus that Dr. Price provided included the following information about the course, “ Attention is given to developing attitudes and actions that promote social justice, equity, and a sense of community

resulting in a learning environment where students and their families are valued.” When asked about this statement, Dr. Price relayed that the entire department is targeting students’ beliefs and attitudes about teaching diverse students.

When asked what the department was trying to accomplish specifically in this regard, Dr. Price responded:

I think we are probably trying to do ... if not change beliefs then at least maybe clarify beliefs. We work with a lot of students who are really nice people and probably trying to help them realize that they’re going to work with students and families who may be different than they are and we want them to have the attitudes of acceptance and perseverance and working and not writing kids off or having biases that they’re not aware of and those types of things. So, really we’re trying to raise awareness and help them think through what they do believe and what they should believe.

Use of the Common Beliefs Survey. Dr. Price had his students complete the Common Beliefs Survey in the first two weeks of the course. He then had his students go back and refer to specific beliefs that corresponded to various units in the course. For instance, for his unit on “Race, Ethnicity and Language,” he had students review the learning resources associated with Common Belief 1 (Color Blindness) and Common Belief 6 (Academic Capabilities of ELLs). He also suggested that they review the learning resources associated with Common Belief 3 (Adapting Instruction to Students’ Cultures) and Common Belief 9 (Learning Styles).

In fact, Dr. Price considers the TDSi website and the Common Beliefs Survey to be a “major text book for the course.” When asked why he had used the Common Beliefs Survey in both his undergraduate and graduate courses, he replied:

I think it’s great material. One of the things that frustrates me is to say to students, ‘Well, go find information on this topic or that topic,’ and they go to Wikipedia or some other even maybe less reputable sites than that. And it just seems there are so many materials that are there on so many of these topics and

there's the quality with the videos and articles and the survey and just the whole package is – it's good stuff.

Student responses to Common Beliefs Survey. Prior to the interview, Dr. Price was provided a description of transformative learning and disorienting dilemmas. A disorienting dilemma is defined in this context as an experience or situation which

Rather throws the learner off balance from their usual perspective and view. It may be something profoundly new they are learning in class, or the death of the a loved one, persecution or divorce ... a host of life changes, circumstance and learning opportunities may work in concert to create a transformative learning opportunity wherein the learner is searching for new answers and new perspectives because their prior system is no longer sufficient (King, 2009, p. 5).

Although three of his six graduate students were interviewed for this study, Dr. Price was asked about his students' overall reactions to the Common Beliefs Survey. When asked, "Would you say that you saw indications of students experiencing a disorienting dilemma as they were exposed to this content (CBS)?" he responded that he did. He, in fact, did a pre- and post-survey that has many of the same concepts as the CBS in order to detect movement in his students' attitudes and beliefs. The outcomes of the survey for this cohort indicated that there was movement in students' thinking, some more than others.

When further asked, "Have you had experiences with students who haven't (experienced a disorienting dilemma)?" he also responded that he had: "Yes. I mean I think there are some ... who say that 'No, I'm not going to let that challenge my thinking or I don't care.' Probably, they do care, but they're just not open to changing that opinion."

Interestingly, Dr. Price commented that he thought that the students in his graduate class were more hesitant to reconsider their beliefs than his undergraduate

students. When asked if he felt that these students were authentically engaging in critical self-reflection and still arriving at this resistance or if the resistance was occurring at the point of beginning to reflect, he responded: “Probably, more that they are not even really engaging in the reflection and that’s why I just keep working on that all semester long and not even just in this class ... a lot of the students at the end are telling me that, ‘I never thought about this’ or ‘This course really caused me to have to think about what I believe and my attitudes.’ And, so I think the ones who do engage at least are a lot more aware.”

Of Dr. Price’s three graduate students who were interviewed, all three were found to have disorienting dilemmas according to the study’s analysis criteria. This aligns with his observation about his graduate students: “I was really pleased with the graduate class to see the -- just the real struggles that a lot of them were having in discussing a number of these issues and talking about how they’re questioning their own beliefs. And, there were a couple of discussions where people said they didn’t know what to think now ... I was really pleased that they honestly engaged in critical thinking and reflective thinking.”

Cohort 1 Case Descriptions and Analyses

Following are the analyses for each participant from Cohort 1 who was deemed to be a case according to the case criteria. Each analysis includes participant demographics; a description of their disorienting dilemmas and experience with the CBS; a discussion of variables that might have contributed to their disorienting dilemmas; and an assessment of the participant in terms of their perspective transformation. Their names have been changed to protect their identities.

Cohort 1, Case 1 -- Mary

Mary is a White, 26-year old woman and is an in-service 7th grade English teacher pursuing her Master's Degree at a small, private parochial college. She recently completed Dr. Price's online, asynchronous course focused on teaching diverse students. It was in this class that she worked through the Common Beliefs Survey.

She has had experience with at-risk students through the school in which she currently works. Through her teacher education program she has had approximately three courses focused on teaching diverse students.

Mary indicated on her Learning Activities Survey (King, 1998) that she experienced a disorienting dilemma related to her experience with the Common Beliefs Survey. She also reported that she realized that she had recently experienced a change in her values, beliefs, opinions and/or expectations. The follow-up interview with Mary on November 12, 2010 confirmed that she had, in fact, experienced a disorienting dilemma and experienced a change in beliefs. All of the quotes in this section, unless otherwise noted, are from that interview.

Disorienting dilemma and experience with the CBS. When Mary was asked about her change experience, she said, "... I have a pretty large grouping of Hispanic students and so how I interact with them, it wasn't until some of those (Common Beliefs) surveys that I realized ... some of the preconceived biases I had toward them and based on some of my experiences with them in the past. It was kind of, you know, lumping them into a group that wasn't necessarily, or a stereotype, that wasn't necessarily who they were."

Mary was not expecting to have any sort of perspective change in Dr. Price's course. In fact, when she began the course, she was unsure how any of it was going to fit

into the professional development plan she would have to update as a result of the class. She said, “Yeah, it was interesting because in the beginning of the class, I was like, ‘Well, I’m really not sure how much of this ... is going to fit in my plan.’ I didn’t have a specific goal that worked with diverse students. But then as I got into the course, I realized that those diverse students are a part of every one of the goals.”

Mary was asked if there were any of the common beliefs that really stood out to her and really challenged her thinking. Her response was: “I think they all kind of challenged my thinking a little bit. It wasn’t that one was ... really specific or one that I didn’t even connect with at all.”

When asked how she felt when she encountered beliefs in the CBS that challenged her beliefs, she responded that “at first it’s kind of frustrating ... because you think ‘Oh, I am not biased at all. I am not prejudiced. I am not anything.’ And then as I realized that I am, like ‘Okay. I don’t think that I do, but I do a little bit.’ And, so being able to work through that, it was rewarding to know that I was given ... a fresh start ... So, it was really good ... once I can work through the initial feelings of being frustrated.”

Mary’s experience assumed many of the characteristics of critical self-reflection that Mezirow deemed key to perspective transformation. Key among these characteristics is “becoming aware of specific assumptions (schemata, criteria, rules, or repressions) on which a distorted or incomplete meaning scheme is based and, through a reorganization of meaning, transforming it” (Mezirow, 1985 as cited in Kitchenham, 2008, p. 112).

For instance, when asked what she might do personally and/or professionally now that she had this awareness and desire to critically reflect on her beliefs, she responded:

“I think just being aware is going to be the biggest thing of understanding, ‘Okay, these are the predispositions that I have whether it’s something that has been passed from my parents or experiences that I’ve personally had.’ Just at least being aware of those biases that I have and being, you know, open and consciously working against those.”

Variables associated with the disorienting dilemma. The variables that most likely associated with Mary’s disorienting dilemma were her personal attributes; the learning environment created by Dr. Price; and the content of the Common Beliefs Survey. With regard to her attributes, Mary indicated on the Learning Activities Survey (King, 1998) that she was reflective in nature. When asked how these reflective tendencies may have affected her experience with the CBS, she conveyed that her willingness to think about her beliefs and change made the CBS a useful tool for her.

When asked how she felt when she encountered inconsistencies through the CBS (and the course) between her action and beliefs, she responded: “I think for me it was more of, ‘Okay, here are some areas that I need to work on.’ And, I feel like because of my personality, I was willing to work on some of those things... yeah, trying to match those back up so that my beliefs aligned with ... my actions.”

Based on her accounts of Dr. Price’s facilitation and the activities (e.g. personal reflection, verbally discussing beliefs with others, and deep concentrated thought) that the class engaged in, it appears that these variables may have also contributed to her disorienting dilemma. When asked if Dr. Price challenged her and her colleagues on a consistent basis, she said, “Yeah, usually more than we wanted to be.”

Mary reported that she was comfortable in the online environment of the course and that the levels of trust between her, her classmates and Dr. Price were very high. She

also said that the online environment of the course added to the discussions because “you can be a little more free on there ... so I think that (it) allowed it to kind of go a little bit deeper.”

The learning environment described by Mary seemed to incorporate some of Mezirow’s criteria for learning experiences that foster transformation. According to Mezirow (1997):

Education that fosters critically reflective thought, imaginative problem posing, and discourse is learner-centered, participatory, and interactive, and it involves group deliberation and group problem solving. Instructional materials reflect the real-life experiences of the learners and are designed to foster participation in small-group discussion to assess reasons, examine evidence, and arrive at a reflective judgment (p. 10).

Mary further conveyed an engagement in critical self-reflection in the interview when she was asked if there were things in the Dr. Price’s course that could have been done differently to help her work through those challenges to her beliefs. She said:

It’s not anything I could have done overnight. It’s just to be more aware of who I am and the beliefs that I have, you know, based on my background knowledge and where I’ve been with some of these kids and their culture and that type of thing ... each day kind of brings more of that about, you know, looking at them and understanding where they come from and appreciating some of their values and their culture as opposed to just saying ‘okay, I am finished. I got it.’

Discussion of case. The data suggest that Mary experienced a disorienting dilemma associated with the CBS and related activities. However, there was still a bit of overlap between instrumental learning and communicative learning in Mary’s current journey. For instance, Mary was critically reflecting on her beliefs and assumptions, but her reflection was somewhat limited at that point to her assumptions about Hispanic students. It is likely that more of her critical reflections will become the deep-seated process of premise reflection, which requires Mary to see the larger view of what is

operating within her value system and how that impacts her interactions with all people of all different races and ethnicities (Mezirow, 1995 as cited in Kitchenham, 2008).

As stated earlier, when asked about how she felt when realizing her bias, Mary said, “At first it’s kind of frustrating like, because you think ‘Oh I am not biased at all. I am not prejudiced. I am not anything.’ And then I realized that I am, like, ‘Okay, I don’t think that I do but I do a little bit and so being able to work it through that.” When asked if Dr. Price challenged her about her beliefs, she said that he did and that it was not an “easy process at all.” Mary appears to have experienced an emotional response to the disorienting information and that emotional response was strong enough to motivate her to critically examine her beliefs and assumptions. This is a hallmark of a disorienting dilemma (Mezirow, 1991; Kitchenham, 2008).

When asked about how Dr. Price helped her process this realization and change she said that he challenged the students on a consistent basis about their beliefs and that he provided lots of articles about related issues. Mary also reported that the class engaged in quite a bit discussion to talk through these “frustrations.”

When Mary was asked about her professional development plan, which is required by her program and was to be updated during Dr. Price’s course, she said that she did not have any goals in her plan related to teaching diverse students. However, she realized during the course that “those diverse students are part of every one of my goals. Because my goal is to work with students and obviously I have diverse kids in my classes and so then as the course went on, I kind of started to see the big picture.”

When asked if her experience with the Common Beliefs Survey informed her work on her professional development plan and other assignments in the class, Mary said

that her exposure to the CBS early in the course made her aware of her biases and that she used the course assignments and activities that followed to work through this realization. Mary appeared to be committed to on-going critical self-reflection when, as quoted earlier, she said, “I think just being aware is going to be the biggest thing of understanding of, ‘Okay, these are predispositions I have, whether they have been passed from my parents or experiences that I personally have had.’ Just at least being aware of those biases that I have and being ... open and consciously working against those.”

The data from Mary’s interview indicate that she may have engaged at times with the CBS primarily through an instrumental learning perspective meaning that she was thinking about the “how” instead of the “why” with regard to the practices and techniques discussed. However, several of her statements indicate that through the course, she crossed over into communicative learning and premise reflection. In other words, she began to question why she did what she did and why things were the way they were.

In sum, Mary’s engagement with the CBS appears to have contributed to her experiencing a disorienting dilemma and moving through several phases of transformative learning. The data also suggest, too, that her personal attribute of reflectivity contributed to the disorienting dilemma, which was further supported by the learning environment created by Dr. Price. The CBS appears to have contributed to this crucial process.

Cohort 1, Case 2 – Melissa

Melissa is a White, 30-year-old, in-service teacher pursuing her Master’s Degree at a small, private parochial college. Like Mary, she recently completed Dr. Price’s online, asynchronous course focused on teaching diverse students. It was in this online

class that she experienced the CBS. She has had experience with at-risk students as a camp counselor for nine summers and substitute teaching in Pittsburgh public elementary schools as a music teacher. Through her teacher prep program she has had two courses that focused on teaching diverse students. She is not currently teaching.

Melissa indicated that she had experienced a disorienting dilemma related to her exposure to the CBS when she selected the statement, “I had an experience that caused me to question the way I normally act” (King, 1998) on her Learning Activities Survey.

Her follow-up interview on November 23, 2010 confirmed that she did experience a disorienting dilemma and experienced a change in beliefs/attitudes. All of the quotes in this section, unless otherwise noted, are taken from this November interview with Melissa.

Disorienting dilemma experience. When Melissa was asked about her change experience, she conveyed an experience in Dr. Price’s class that she felt was the trigger to her disorienting dilemma, which was critically reflecting on Hate Groups as a culture:

We had some very interesting ... online discussions ... One of the different cultures that we’ve talked about were Hate Groups and what to do if you encountered somebody who – a child or student – who was raised in a family that was a member of a Hate Group and also having students from minority families in our classroom and how to handle that. And, I just realized I had given thought before to working with students from different races but not ever given any thought to the other extreme of people who refuse to tolerate different races or different beliefs ... That to me really ... just made me struggle with how I would handle that. And, I guess then I looked a little more into myself and seeing how I feel about these things.

Melissa’s change experience was probed further and she said, “I pretty much had this ‘I know everything about this (working with minority student)’ attitude. And so I, through taking the course and using the survey, realized that maybe I still have some biases of my own that are stuck in there. That maybe I don’t know everything, you

know, of the realizations that I'm not all knowing." She was asked how this realization made her feel, to which she responded, "Made me uncomfortable because it especially made me uncomfortable thinking that there were things that perhaps I had said or done when working with those students that could come across as offensive or not empathetic or judgmental."

Melissa was asked if there were any of the common beliefs that really stood out to her or impacted her. The first belief she identified as such was Belief #2 -- The gap in the achievement among students of different races is about poverty not race. She said that she initially agreed with that belief but now "after studying that ... because it has been ingrained in my brain from different like professional development courses and stuff ... it is still something that I struggle with."

Common Belief #10 -- Grouping students of different levels of achievement for instruction may benefit some students, but it can undermine the progress that could otherwise be made by higher-achieving students -- also challenged Melissa. She said, "I have always struggled in my classes about different groupings and things of that sort. Because you know you struggle with do you keep people with the same level together or mix up?"

Melissa stated that when she encountered the common beliefs that challenged her, her immediate responses were "sort of defensive of myself ... and then the discomfort came as we were working through it together." She echoed that discomfort later in the interview when she was asked about her professional development plan, which is a required element of her program. When the course began, her cohort was asked how they thought the course would impact their plans. When Melissa looked at her plan, she

realized that there was nothing in it about teaching diverse students. As a result, she said she had to “completely revise it because I didn’t have anything which to me, because I had experience teaching in an urban school that was very multi-cultural and I was in the minority, I was sort of appalled by myself that I hadn’t thought of that on my own.”

According to Melissa, the community in which she lived was predominantly white and it is the same community in which she was raised. However, the schools in which she had substituted had lots of English as a Second Language students. She further said, “There were some moments of being uncomfortable, being defensive, then throughout like reading different papers ... and online discussions ... just really letting the wall down, my defenses let down and to really feel like, ‘Okay, these are areas that I could work on’.”

When asked directly about the impact of the CBS and the course on her beliefs and assumptions, Melissa said that, “... I think the way that it impacted me is to really make me re-evaluate my thought process.” This indicates that Melissa had begun a process of critical self-reflection about her beliefs, which is right in line with Mezirow’s (1991) theory.

Variables associated with the disorienting dilemma. The variables that were most likely associated with Melissa’s disorienting dilemma were her personal attributes, including her upbringing and professional experiences; the learning environment created by Dr. Price; and the content of the Common Beliefs Survey. With regard to her attributes, Melissa indicated on the Learning Activities Survey (King, 1998) that she is reflective in nature. When asked how these reflective tendencies may have affected her experience with the CBS, she conveyed that she thought a lot about past experiences in

the classroom and how she had responded to situations in the past and how she might respond now. This is more of a process reflection to which she followed up with another process reflection by saying, “And, again in my classroom, I think a big thing that I thought about is, is the incorporation of all different styles of music ... but then also to take my students out of their comfort zone.” She was reflecting about the “how” instead of the “why” (Cranton, 2006).

When she was asked how she reconciled the dissonance she experienced between her beliefs and the information from the CBS, she said that the course itself led to a sort of reconciliation: “It was sort of a natural process through the class that I felt like we worked through those uncomfortable moments.”

According to Melissa, the critical self-reflection she undertook was aided by Dr. Price’s facilitation. She reported that he talked with her about her observations and reactions. She also reported that he was always actively involved in the discussions, the online discussions as well as “responding to papers and sort of challenging us to continue to do research and continue to grow and learn even after the fact.”

Another thing that Dr. Price did that really stood out to her and provoked some critical self-reflection was his introduction to and discussion of “white privilege.” As a result of this discussion, she started critically reflecting on her community. That reflection was informed by the course and the CBS: “But, it’s interesting to look at the community that I live in and why is it that way ... I grew up in this community. This is where I live. Went to college and came back and it’s what home is. But, it sort of just made me uncomfortable looking around and saying ‘What is this sea of white? Why? Why is it that way’ ... it opened my eyes to things.”

When Melissa shared her reflections and challenges with Dr. Price and her classmates, she said that the conversations along with the CBS “opened my eyes to the lack of diversity in my area ... I still don’t really know why that is, but it opened my eyes to things.” Melissa credits the CBS with starting her critical thinking about how she viewed teaching minority students as a music teacher: “Because before this (the CBS), I thought ‘Well, yeah, multi-cultural music is important to teach students about multi-cultural music. But not to use it to teach students music’ ... And, that all stemmed from the survey.”

With regard to the online format of the course, Melissa reported that she was comfortable with that environment having taken a number of online courses already. She felt as though she was part of an “amazing community” and she expressed a high level of trust between herself and Dr. Price. She also felt the same level of trust with her colleagues in the course.

Melissa found that the online environment gave her and her colleagues “time to sort of reflect, gather our thoughts and then respond to somebody’s post. As opposed to if you’re in conversation, you know, have that freedom to really think about what you’re going to say before you say it.” She also felt that the online environment enabled her and her colleagues to be more open because they were not face-to-face during their discussions.

Finally, when Melissa was asked about what she had experienced or read in any of her teacher education or teaching experience that most impacted her beliefs about teaching and/or teaching diverse students, she talked about an undergrad course on urban education. In that course, they read (Jonathan) Kozol. She said that those readings

“really influenced me. That course in particular. About opening my eyes to, to different cultures. And, I think part of that was because I came from such a not diverse culture.”

As a follow-up to Melissa’s response, she was asked: “So, would you say that Dr. Price’s course and the Common Beliefs Survey is really building on a process of awareness that started when you took this urban education course?” She replied, “Yes ... it was interesting because it has been so long since I had taken the course (that included the Kozol piece) and ... it brought back a lot of those memories and those things ... some were stuck in the back of my brain. They (the course and CBS) brought it to the forefront of my brain.”

Discussion of case. Melissa appears to have entered Dr. Price’s course with a willingness to explore the challenging issues around teaching diverse students. She appears to have experienced a disorienting dilemma that was triggered by a combination of the Common Beliefs Survey and the course curriculum and discussions. For instance, she said that as a result of the CBS she was thinking about how to better integrate multicultural music into her music class curriculums – still a “how to” perspective or pre-dilemma status. She echoed this sentiment later in the interview when asked how the CBS impacted her beliefs and assumptions about teaching diverse students. However, as stated earlier, the CBS also made her begin to re-evaluate her whole thought process.

Melissa’s re-evaluation is a tell-tale sign of her engagement in critical self-reflection (Mezirow & Associates, 1990; Mezirow, 1991; Brookfield, 1997; Howard, 2003; King, 1998, 2004; Kitchenham, 2008; Merriam, 2004) and that she is beginning to reflect on her beliefs and assumptions about teaching diverse students and, in the process, beginning to transform her perspectives. The data seem to indicate that she experienced a

disorienting dilemma and conveyed a growing level of premise reflection. It appears that her disorienting dilemma, while associated with the CBS and this course was also the product of an accretion of experiences that began before this particular course.

This accretion dimension is apparent in the fact that the bulk of her discussion about her disorienting dilemma focused on critically self-reflecting on her background and different critical incidents in her past. According to Cranton (2006), a critical incident is a time that stands out in a person's memory as being particularly positive or negative.

Both the course and the CBS seem to have contributed to the continuation of her disorienting dilemma and a deepening of her reflection. As Cranton (2006) writes, "In order to bring about a catalyst for transformation, we need to expose students to viewpoints that may be discrepant with their own" (p. 66). Melissa may have received that exposure prior to Dr. Price's course, but she also received that exposure in this course and through the CBS.

Several assignments in Dr. Price's course provided Melissa with an opportunity to think about how to incorporate her emerging new perspectives into her future work. These assignments, the professional development plan (discussed earlier) and the personal accountability plan asked students to specifically think about how they will work with diverse students. These exercises align with facilitation practices and adult educator goals (see Appendix D) in transformative learning theory (Cranton, 2006; Mezirow, 1991; Kitchenham, 2008; Merriam, 2004). These assignments may help Melissa continue her perspective transformation as she completes her coursework and returns to the classroom.

Cohort 1, Case 3 – Teresa

Teresa is a White, 30 year-old woman. She is certified to teach middle and high school English and has taught both remedial and college prep English. She is currently substitute teaching and her previous teaching experience was in an affluent private school. She left full-time teaching to stay home with her child and is currently pursuing her Masters' Degree in Education, which she will receive in May 2011.

Teresa has had very little exposure to at-risk and minority students both personally and professionally. Dr. Price's course was the first class Teresa had ever taken that was focused on teaching ethnically, racially and economically diverse students.

She indicated on her Learning Activities Survey (King, 1998) that she experienced a disorienting dilemma related to her experience with the Common Beliefs Survey. The follow-up interview with Teresa on October 30, 2010, confirmed that she had experienced a disorienting dilemma. Unless otherwise indicated, all the quotes in this section are taken from that interview.

Disorienting dilemma and experience with the CBS. When asked about her disorienting dilemma, Teresa said:

I want to say that I have personal prejudices. But, specifically in the area that we live ... there has been a huge shift between what we would consider majority and minority ... and you feel favoritism (happening) towards the people that were listed as minority. And, I think I had – no, I know I had – prejudices because of those, oh what's the word, because of those privileges that minorities were receiving. And, through the class and through looking at the Common Beliefs Survey and just rethinking my stand as a teacher and how I looked at my students, I think it helped change my opinion and my own personal biases.

Teresa was very open and forthcoming throughout the interview about her pre-existing biases and how challenging it was to confront and work through them. For

instance, when asked if there was a specific moment in the course where she realized she needed to re-think her beliefs, she conveyed the experience she had with Dr. Price's Hate Group assignment. Through her research and writing related to the project, Teresa had a "shoe is on the other foot" experience with regard to racism.

Her research uncovered a Black Hate Group that was focused on hating White people. She reported being "appalled":

Because for the first time, I would say in my life, it was like I was hated for something that was completely out of my control... And to know that I could be that vulnerable as maybe the minorities in my community ... I felt like I was in the same boat ... And, then it did transform the way that I thought and the way that I was viewing the minorities in my community ... But after that, I almost felt embarrassed for ways that I had thought before or maybe even things that I had said not necessarily in my classroom, but in the privacy of my own home. And, I would say I'm definitely embarrassed.

Teresa related this experience to Dr. Price and her classmates through their online discussion boards. She said that Dr. Price was more like a guide to her and the class. He allowed the students to formulate and explore their own questions about the issues about diversity that related to their own experiences. He created an environment of "autonomy" per Mezirow's facilitation guidelines and adult educator goals (see Appendix D). Teresa stated that she had a good relationship with Dr. Price and there was a level of trust with Dr. Price because of her past courses with him.

Despite this strong relationship, Teresa was not expecting much from the course when it first began. In fact, she said that she "wasn't thrilled with the class especially after the first unit." It was not until later in the course when they engaged in a lengthy unit about poverty and critiquing Ruby Payne's research that she felt all the pieces of her experience in the course come together: "It grabbed me, I think, right at the very, very

end of the course where everything – it made sense on how everything fits together ... there is definitely a change (in my perspective) and for the better, I would have to say.”

Teresa stated that when she took the Common Beliefs Survey, which occurred very early in the course, she felt retrospectively that it geared the students’ minds to be honest with themselves. When asked about specific common beliefs that stood out to her, she cited Common Belief #4 -- In some cultures, students are embarrassed to speak in front of others, and so I take this into account and don't call on these students in class. This belief stood out to her because one of her biggest fears is that when she encounters students from other cultures or ethnicities she might offend them.

The primary reason that this belief stood out to her was because she had had a large group of Korean exchange students in her classes at the private school where she previously had taught. This experience challenged her because she knew nothing about Korean culture and was afraid of making them feel uneasy or embarrassing them, but she did not know quite how to navigate the situation. That changed when she became better acquainted with several of the students who spoke English and were able help her understand Korean culture as it related to her students, so this belief resonated with her.

Teresa brought up Common Belief #9 on her own -- Students of different races and ethnicities often have different learning styles, and good teachers will match their instruction to these learning styles. She cited this belief as an illustration of how her reflective tendencies impacted her experience with the CBS and made her want to be more cognizant of the things that affected her students by learning from the Survey. Teresa also said that she thought that there was something challenging in each one of the beliefs because “I think one of the things that we discussed as a class was did we agree

with all of the beliefs? Did we disagree? And, I think there is something within each of the beliefs that makes us stop. It makes us question.”

While Teresa’s interview indicates that she engaged in critical self-reflection in response to the course curriculum and her experience with the CBS, she did not think that Dr. Price engaged them in that. She did say that she recognized the importance of reflection and that that was an activity she regularly engaged in when she was teaching. This reflection, as she described was not critical self-reflection or premise reflection. Instead, the bulk of it was content and process reflection focused on curriculum and pedagogy: “The activities that I did with the students definitely varied from year-to-year-to year because I would look back on it and, like, through the reflection process decide ‘OK, should I do this? Can I, you know, reform this? Or, should we just knock it out and try something new?’.”

Nonetheless, after defining critical self-reflection as critically reflecting on one’s beliefs or assumptions about their role as teachers and about their students for her she confirmed that she became more likely to critically reflect on an ongoing basis on her beliefs and assumptions as a result of her exposure Dr. Price’s course and the CBS.

Variables associated with the disorienting dilemma. The variables that were most likely associated with Teresa’s disorienting dilemma were her personal attributes and the content of the Common Beliefs Survey. As mentioned earlier, Teresa indicated on her Learning Activities Survey (King, 1998) that she was reflective in nature. And, as also noted earlier, some of her reflections vacillated between those associated with instrumental learning and communicative learning. However, she also expressed a fair amount of premise reflection. She said that because of her reflective

tendencies, her experience with the CBS made her want to be more “cognizant of the things that affect my students.”

When she was asked how she responded to discovering information through the CBS that was inconsistent with her beliefs, she said: “Well, my gut reaction was, ‘Oh, that’s not good’ when there’s an inconsistency. But, what it also made me want to do is it made me want to look deeper into the issues and why did I feel there was an inconsistency ... And, so now when there’s an inconsistency, I want to, you know, look at the research and I want to look at the opposing viewpoints.”

Her personal and professional background also appears to have contributed to her disorienting dilemma. For instance, when Teresa was asked about how she processed information that she encountered in the course and CBS about poverty, which was an issue that particularly challenged her, she said:

The only thing I could keep thinking the whole time that I was doing it (working through the unit on poverty) was that I had very little experience with students from poverty because the school that I taught at, it was a private Catholic school ... So the whole time that we were going through especially the part on poverty, the only thing I could relate back to was when I was in high school because through my teaching, the kids that I worked with, 95% of them came from affluent families ... I looked into a lot of other articles about poverty because I wasn’t familiar with students that come from families of poverty.

She later re-iterated her challenge with the issues of poverty when she discussed the unit in the course that critiqued Ruby Payne’s research. Not only was the exercise of challenging research that was accepted by many education professionals a “smack in the face,” it made her question the research on almost anything, including the Common Beliefs Survey. She said that now whenever she encounters an inconsistency in research, she wants to look at the opposing viewpoints, as well.

As discussed earlier, Teresa felt that all of the beliefs in the CBS challenged her beliefs to some degree. When asked if Dr. Price helped her work through these challenges, she said that he did by providing additional resources for them to consult and she appreciated his willingness to let them explore their own issues of interest. However, Teresa conveyed strongly that exposure to the content in the course and the CBS contributed to her disorienting dilemma and experience. Her processing of the dilemma seemed to happen more by her self-initiated reflection, research and discussions with peers than through Dr. Price's facilitation.

Although the learning environment, as reported by Teresa, does not appear to be a major contributing variable to her disorienting dilemma, she did express an appreciation for being able to share her thoughts and feelings with Dr. Price and her peers in the online environment. She said that the members of her Masters' cohort were close with one another so "it was very easy to relate exactly how I felt and what I was thinking and what I was experiencing as we were going through the class."

Discussion of case. Teresa began Dr. Price's course with low expectations that she would get anything out of the class. By her own admission, however, the course met more of her learning and professional development goals "in ways that I never had anticipated." It is not clear what Teresa's goals were. Nonetheless, she said that she changed her professional development plan, which is required by her program, to reflect her experience in the course.

Teresa definitely engaged in self-examination as is evidenced in her interview, but there were instances of this self-examination related to the CBS that actually confirmed some of her beliefs and/or assumptions. Specifically, her response to Common Belief #1 -

- I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching – was that she was not color blind: “I, right off the bat, I said I am definitely not color-blind because I don't think especially in today's day and age, you can afford to be.” The CBS confirmed a belief that she already had at the time of her encounter with the survey.

Her class members were required at several points to post and discuss their responses to things. Through these postings and discussions, she and her classmates were able to really question and grapple with issues that challenged them. One issue in particular seemed to be the Ruby Payne research they covered. Teresa said that they had lengthy discussions about that research and explored the misgivings that many of them had. This gave Teresa a perspective that she was not the only one questioning their beliefs and assumptions.

In the preceding sections, Teresa is quoted as saying that as a result of the course and CBS, she was starting to look at things differently and, while she has always been a reflective teacher, she recognized that she needed to dig deeper and really evaluate her thoughts and beliefs. Not only is this indicative of a disorienting dilemma, it is also an illustration of her transition from process reflection with its focus on “how” to premise reflection with its focus on “why”.

Teresa said that there were several things that she thinks she will be doing differently as a result of the course and CBS. One of them is that she said she would be keeping her “mind more open as to what students are truly capable of doing no matter what the circumstances.” This is in line with premise reflection. However, another thing that she said she would be doing differently was that she would become a more savvy

consumer of research: “And so now, when there’s an inconsistency, I want to, you know, look at the research and I want to look at the opposing viewpoints” (p. 10).

Teresa was asked about how she would adapt her instructional practices given her experience in the course and with the CBS when she returned to the classroom. She outlined how she would take a holistic approach to teaching students, especially high-poverty students: “I think one of the biggest things that is going to be essential for reaching students in my classroom that would possibly come from a poverty background is to come up with some kind of communication between the school and home.” She echoes this later in the interview when she talked about the personal accountability and action plan that Dr. Price had them do.

In her accountability plan, Teresa quoted Paul Gorski (2007b), whose writings were part of their curriculum: “The teachers must be prepared to effectively facilitate learning for every individual student” (as cited in “The challenge of defining ‘Multicultural Education;’” at <http://www.educhange.org/multicultural/initial.html>). She said that she gravitated to this quote because she realized that “when we sign up to be teachers, we don’t sign up to teach just affluent, you know, white students ... we have to be prepared to effectively teach everybody.”

As stated earlier, Teresa was inclined to do research on questions and topics of interest to her throughout the course, especially when she was confronted with contradictory data. This inclination prompted her to do research into community and parental involvement in education to understand better how to accomplish this: “Like even when we were doing the community involvement at the very end of the class, these

different articles that I would pull up about policies and procedures and good strategies, I did a lot of different research on all of them.”

Since Teresa is not currently working as a teacher, her opportunities to try on the “new roles” are limited. However, the classroom exercise related to the research she did, may assist her in her new role as teacher when she eventually transitions from student back to teacher.

Based on her interview and her survey responses, Teresa appears to have been shaken by the Common Beliefs Survey and the course curriculum in a way that aligns with Mezirow’s (1991) definition of disorienting dilemma.

Cohort 2 Description

Cohort 2, which has only one case, was drawn from an asynchronous, online course, which was an introduction to special education, at a large, public university. The course did have three face-to-face meetings programmed into its schedule and the course was divided into three modules: scope of special education law; diversity; and inclusion. The Common Beliefs Survey was included in the diversity module. The course instructor’s goal (Dr. Brown) for the diversity module in particular was to “move people from a deficit model or a medical model to a strength-based inclusion community model” in special education.

The course had nine graduate students of which five participated in this study. Only two were deemed to be cases per the criteria outlined in the methodology section. However, one of the participants was dropped as a case because he admitted that he had not done most of the required course work, including completing the CBS even though

his responses on the Learning Activities Survey (King, 1998) and interview indicated and validated the presence of a disorienting dilemma.

Unless otherwise noted, all quotes in this section are taken from the October 27, 2010 interview with Dr. Brown. Also, some of the course and assignment descriptions were taken from the syllabus for the Fall 2010 course, which ran from August 30, 2010 through December 10, 2010.

Dr. Brown helped to recruit the five participants for the study. Most of the students were certified teachers, but not all of them were currently practicing. All were pursuing a Masters' Degree in Education. There was one African-American student and one Hispanic student in the course. The rest of the students were non-Hispanic Caucasian.

Learning environment. Just like Dr. Price, Dr. Brown was asked about the role that trust played in her course, especially with regard to the module about diversity. She responded, "I think these people are pretty trusting of each other, very comfortable sharing their beliefs."

Although Dr. Brown's course was primarily online, there were three face-to-face meetings scheduled. When asked how this format contributed to the overall learning environment and students' experiences with the Common Beliefs Survey, she said that the format did provide opportunities to "reflect on each other's responses, which you don't have in a classroom ... somehow I think that they are more comfortable, in some instances, responding to each other honestly and openly."

When questioned further about how the online format contributed or detracted from the learning environment, Dr. Brown admitted that while she preferred face-to-face

discussions and classes, she did say that she felt the students were every bit as forthcoming online as they would have been in person and that “writing itself is so generative that when you’re putting down your response, it make you think and it makes you take your thinking further even. So, I don’t think there’s anything lost in that respect online.”

Despite the preference for the face-to-face learning format, Dr. Brown – like Dr. Price -- recognized the distinct advantages offered by the online learning environment. Specifically, she said “it’s easier to have a conversation ... And, in some ways, I like it better because you can see them (the responses) right in front of you and what that person said ... two interactions ago and you can go back and respond to that. Whereas, when you have the conversation and the words are out there, you know, that you don’t necessarily remember.”

When asked about the level of critical reflection she observed among her students or that she tried to foster, Dr. Brown responded that she thought they were “pretty reflective.” She provided several examples of things that her students had either written or said in person that indicated to her that many of them were “sort of examining their beliefs.” She also stated that she encouraged critical reflection among her students: “... if you don’t know what your philosophy of teaching is, then you can’t be sure that what you are practicing is consistent with that. So, I have always encouraged teachers to be very cognizant of what they believe so that they can figure out whether their practice confirms that or not.”

Dr. Brown did not think that, in general, the university’s school of education promoted critical thinking about equity and diversity. However, she did feel that the

Special Education program had a number of courses that promoted critical reflection and addressed issues of equity and diversity.

Use of the Common Beliefs Survey. Dr. Brown had her students complete the Common Beliefs Survey in the first week of the diversity module. Students were instructed to “write about three of the beliefs that surprised you or resonated strongly with you or somehow provoked your thinking ... comment on the entries of the other two people in your group.” Students were also instructed to view the *Taking a Closer Look* resources associated with the three beliefs they selected.

While the Common Beliefs Survey was only directly programmed into one week of Dr. Brown’s course, she stated that the ideas of the CBS are woven through the entire course:

But, I think the whole course has sort of been built on how do we get closer and closer to an inclusive society by promoting that in our classroom ... I encourage them (students) to look at that in various ways and this last module would be my last ditch effort to get them to look at the possibilities and the potential for classrooms where all kids are included and see what impact that could have on our society.

Dr. Brown did not use the Facilitator’s Guide in deciding how to incorporate the CBS into her course. In fact, she could not even locate it on the TDSi website. However, when asked how she found out about the CBS, she is a “big fan” of Teaching Tolerance and she liked the beliefs that were covered by the CBS.

Student responses to the common beliefs survey. With regard to her students’ reactions to the CBS, over the course of the interview Dr. Brown highlighted two beliefs that seemed to have been selected by a number of students for discussion: Color Blindness (#1) and Self-Esteem of Diverse Learners (#7). Dr. Brown shared her

students' postings and after analyzing them, Responding to Cultural Dispositions (#4) and Family Engagement (#5) were selected as many times (four students selected them) as #1 and #7. In most cases, the students who selected these beliefs wrote that they disagreed with them, except for Family Engagement. Three of the four students agreed with #5 and one did not. Further, students selecting other beliefs tended to disagree with those beliefs, as well.

There was some confusion expressed by some of the students in both their online postings and by at least one student interviewed about the beliefs. Specifically, some of the students thought that the beliefs in the CBS were best practice that were being promoted by TDSi. It is unclear how this confusion might have impacted students' responses to the CBS. However, it stands to reason that if a student agrees with a common belief and thinks that the common belief is considered best practice, then it is unlikely that that belief and the associated learning resources will contribute to any dissonance for the student.

During her interview, Dr. Brown brought up Belief #7 (Self-Esteem of Diverse Learners). She said that while the CBS experience re-affirmed students' beliefs in most cases (students disagreed with the beliefs), that particular belief received mixed responses. She further stated her thoughts on that issue, including that she disagreed with what some of the learning resources had to say about it and she said, "I'm not sure that that particular common belief is stated clearly enough."

In Dr. Brown's final posting to her students at the end of their work with the CBS, she wrote, "It's interesting that a couple of days ago someone contacted me from Teaching Tolerance asking educators who have used this Common Beliefs Survey to

participate in a study. I'm glad that they are asking for feedback on their tool. In some cases I don't think their statements are real clear and in some other places I disagree with their perspective, and so did some of you."

Confusion aside, Dr. Brown did not think that the Common Beliefs Survey challenged her students' thinking "except maybe on the reward thing (#7)." Several times throughout the interview, Dr. Brown commented on how enlightened she thought this group of students was when it came to equity and diversity. For instance, early in the conversation Dr. Brown said about her students that "they are extremely – I have taught other classes (at this university) and I would say this is an extremely mature, enlightened, transformed group of students, which has been really fun." When asked what she meant by "enlightened and transformed," Dr. Brown said primarily she was referring to their attitudes about inclusion (of special education students).

At another point, she said, "if these kids are indicative about who is going into Special Ed, then I am really comforted. It just seems like they have had experiences that broaden their thinking, which is very nice." Given that only 2 out of the 5 students from her cohort who participated was identified as having had a validated disorienting dilemma, the low numbers could be attributable, as Dr. Brown said, to their advanced perspectives. However, based on Dr. Brown's statements about some level of collective disagreement with CBS perspectives among her students, the low number could have been because the students' beliefs just were not challenged by the CBS.

Cohort 2, Case 1 – Cheri

Cheri is a White, 30 year-old woman who took Dr. Brown's online, asynchronous *Introduction to Special Education* course, which had nine graduate students enrolled.

She is a certified elementary school teacher and had taught first grade in New York City public schools before returning to graduate school. She is not currently teaching and is pursuing her Masters degree in Library Science with a School Media certification. Upon completion of her degree in May 2011, she plans to become a school media specialist. Although Cheri has never had any courses on teaching diverse students in her undergraduate or graduate education programs, she did teach in a public school with a high percentage of minority students.

Cheri did not select either of the two statements on her Learning Activities Survey (King, 1998) that indicated the experiencing a disorienting dilemma (see Table 6). However, she did answer “Yes” to the survey question that asked if she had experienced a time when she realized that her values, beliefs, opinions or expectations had changed (King, 1998). Analysis of her interview substantiated this response and indicated that she had experienced a disorienting dilemma in alignment with transformative learning theory. Unless otherwise noted, all quotes in this section are from Cheri’s November 12, 2010 interview.

Disorienting dilemma and experience with the CBS. When asked if there was a time during Dr. Brown’s *Introduction to Special Education* course and taking the Common Beliefs Survey when she realized that her values, beliefs, assumptions or expectations had changed, Cheri responded:

I don’t know that I could pinpoint an exact moment, but I would say over the course of this semester, certainly taking into account this survey, they have certainly changed ... I think it was probably when I realized I intended to work with a lot of ethnic minority and under-served populations, but I hadn’t really had a whole lot of experience in special education and not any course work. I think it was when I realized that ethnic minorities tend to be over-represented in certain disability groups and in special education, something just kind of clicked for me. I am almost embarrassed to say that I grew up with people, I engage with people

who have disabilities, but I never really thought of it as a Civil Rights issue really ... and sort of making that connection having worked with ethnic minority students and really learning about how overrepresented they are (in special education).

Cheri had a very emotional response when she had this realization as a result of an assignment in Dr. Brown's class. She said, "Straight away I was really angry ... I ended up e-mailing (Dr. Brown) and saying, 'Can you please give me a couple of extra days because I am afraid I am just going to send a really ranty assignment' as I was really, truly angry."

When asked if the CBS had contributed to her realization and response, she said that what she really got from the survey was a chance to reflect on her own beliefs. Through an assignment related to the survey, she also had an opportunity to share her thoughts with her colleagues in the online course and to see where they were on many of the different beliefs.

The assignment was to write about three of the beliefs that "surprised you or resonated strongly with you or somehow provoked your thinking." Cheri chose the following beliefs:

- # 4 -- In some cultures, students are embarrassed to speak in front of others, so I take this into account and don't call on these students in class.
- #5 -- When students come from homes where educational achievement is not a high priority, they often don't do their homework and their parents don't come to school events. This lack of parental support undermines my efforts to teach these students.
- # 7 -- I believe that I should reward students who try hard, even if they are not doing well in school, because building their self-esteem is important.

Cheri disagreed with beliefs #4 and #5. However, she agreed with belief #7 to a certain degree because she believed in supporting and praising students' efforts as much

as praising the students' outcomes. As discussed in the description for Cohort 2, this belief was particularly contentious among the cohort's students.

She chose these three beliefs because they involved issues that related to her core beliefs about her responsibility as a teacher to meet her students of all abilities wherever they are. She also reported engaging in a level of critical reflection saying that "this was not at all an easy survey in that respect and I then had to be critical of the survey itself."

Beyond the three beliefs she selected for the assignment, Cheri reported that Common Belief #1 really jumped out at her – "I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching." She reported that she believes that being color blind is not a particularly useful attribute in teaching, but acknowledged that it was tricky issue. She then related a very challenging issue she faced when she was teaching a second grade class of all African-American students. The class was studying the American Revolution and she wanted to make it more relevant to her students, so she was planning to talk about what it would have been like to be a kid during that time. That was, until she realized that all of her students would have been slaves at that time in history. According to Cheri, she "chickened out" and just skipped that exercise. She was not prepared to have that discussion with her 6- and 7-year old students. She now acknowledges that her momentary lapse into color blindness probably deprived her students of engaging in robust and interesting conversations around the issue.

Cheri also said that Common Belief #3 -- Teachers should adapt their instructional practices to the distinctive cultures of African American, Latino, Asian and Native American students -- proved to be a contentious issue among the class. (Dr.

Brown did not report any level of contention around this particular belief in the Cohort 2 description.) According to Cheri, the students in the course wrestled with the idea of whether or not adapting instructional practices to different cultures represented in the classroom would instill in their majority students the idea that “Hey, you are wrong. You are keeping these people down’ or something like that.” She disagreed with her colleagues’ assessment of the issues. This discussion made Cheri realize that when she returned to a school setting, she would be engaging with colleagues who hold very different beliefs from her. She realized that she could not assume others held her same beliefs or project her beliefs on her future teaching colleagues. She reported that this realization was probably the result of both the content in Dr. Brown’s course and an accumulation of her experience.

While there was frequent disagreement among Cheri’s colleagues, she reported that the discussions were always respectful and that the cohort from the beginning sustained “really great conversation online.” She also reported that she felt there was a high level of trust between her and Dr. Brown, as well as between herself and her colleagues. The fact that the cohort met face-to-face several times helped build that trust. She said, “It’s been really interesting you know, because these are sensitive issues. I feel like there was almost an immediate rapport for that reason ... and there has been just, quite frankly, a lot of really honest dialogue ... I have felt pretty quickly very comfortable with everyone in the class and I feel we have all been really understanding and encouraging. And, we’ve challenged each other.”

When asked about Dr. Brown’s facilitation of the course, Cheri said that if she had seen them struggling to do so, she would have stepped in. According to Cheri, Dr.

Brown was more of a facilitator than an instructor, but that she did really emphasize and encourage students to talk to others about education, including other practitioners, the “guy behind the counter at Starbucks,” and friends and family. Dr. Brown wanted her students to “make this a conversation, not just among ourselves and not just among academics and practicing teachers, but you know the larger public.” Cheri also said that she was impressed by how responsive Dr. Brown had been in responding to e-mails and providing comments to their assignments.

Cheri said that she had given herself permission while in school to look critically at her beliefs: “I feel like even though I am allowing myself to be looking at my beliefs right now, I am looking at them critically and may be changing some of them. I feel like a year from now, I really need to have this down pat ... And I need to be doing a little less flailing around to really sort of know where I am in terms of my philosophy, when I actually put that into practice.”

Variables associated with the disorienting dilemma. The variables that may have contributed to Cheri’s disorienting dilemma were her personal attributes, the content of the course and the CBS, and the online format of the course. With regard to her personal attributes, Cheri indicated on the Learning Activities Survey (King, 1998) that she is reflective in nature. As reported in the previous section, she saw her entire time in her graduate program as an opportunity to critically reflect on her beliefs. She attributes the Common Beliefs Survey with contributing to that reflection as reported above.

When asked how she felt when she encountered inconsistencies through the CBS (and the course) between her actions and beliefs, she said that if she were currently in

practice, she would probably have been struggling with these inconsistencies more. But, she considered graduate school to be a period of reflection and she was letting herself “flail around” in terms of reconciling her beliefs, so she said that played into the minimal amount of duress any inconsistencies seemed to have caused her.

The course content added a new dimension to her critical reflection because it was an introduction to special education, something she had not been exposed to before even though she had a parent who was a special educator. She began to think early in the course about what she would be required to do in her practice because of special education laws. She also had a realization that special education is a Civil Rights issue. This led to her anger reported earlier about the over-representation of minorities in special education. She hoped that she could do “something more constructive in future practice” with regard to her anger over this reality.

Cheri reported that she was comfortable in the online environment even though she initially was a little ambivalent about the format. After the course began, she appreciated the format for its ease of use (e.g. ability to send links to different resources to her classmates; accessing resources while posting, etc.). She also appreciated that the format allowed for the participation of classmates coming from diverse situations (e.g. full-time teachers, classmates in other states, etc.) who would not otherwise be involved.

She felt that the online format enabled her to be more thoughtful in her postings and discussion participation. Cheri also felt that the addition of the three face-to-face meetings enabled her to share thoughts and feelings in the appropriate contexts. For instance, when she experienced her anger at over-representation, she said, “it’s kind of nice, it’s easier to go online and in an e-mail say, ‘You know, I am really upset with

what's going on ... can you give me a couple more days to really sort of sift through my thoughts and articulate where I am on this issue.”

However, she said that “there is probably some material, I think, that it's just, it's so sensitive or so personal that, at least for me, I don't think it's really appropriate communicating that online. But, if you have the ability to meet face to face, I have felt so comfortable.”

Discussion of the case. The data suggest that Cheri did experience a disorienting dilemma. The data are less clear about the degree of any association between her exposure to the CBS and her dilemma beyond promoting reflection on her own feelings. Based on her interview, she appears to have already been in the midst of critical reflection if not perspective transformation. Nonetheless, Cheri is engaged in perspective transformation, which necessarily includes a disorienting dilemma.

In her interview Cheri said that she had decided to use her time in graduate school to really reflect on and analyze her beliefs about teaching. As such she said, “What I really have been forced to do is think critically about those issues (special education) and I feel like it is not so much a skill or knowledge that I have taken from this class that's been most valuable. There has been a change in disposition.”

Cheri had a mindset that prompted her to critically reflect on her beliefs and think about how she needed to shift her beliefs and change her instructional practices when she returned to the school setting: “I taught in New York city and now I am in, you know, a small college town ... that kind of distance has really allowed myself to reflect on my past practices. And, in my, the new information that I am getting through my

coursework, I am able to see where I am ... And, I hope it will make me a more sympathetic and understanding teacher.”

Cheri exhibited premise reflection when she was asked about one of the writing assignments for the class that focused on teachers as change agents. She said:

I first addressed where I had initially come from as a practicing teacher when I came into this program, what my experiences were ... so my own experiences and my beliefs with working with particularly an ethnically and linguistically diverse student populations and then how I was reconciling that with my new knowledge about special education issues ... I am trying to think about what I have learned in this class and applying that to my own practice, which is going to be different and you know my role (as a school librarian) is such that I am going to have contact with every single child in a school community and that I have the ability to chart and support a child's progress over several years potentially.

As stated earlier, Cheri credits the CBS with enabling her to reflect on her feelings and beliefs about teaching diverse students. Given Cheri's on-going process of evaluating her beliefs and assumptions and the data from her interview, it was determined that she was experiencing a disorienting dilemma. However, it remains to be seen how her reflections occurring outside of the school context will translate to her practice when she returns to that context.

Cohort 3 Descriptions

As mentioned previously, Cohort 3 was comprised of four education students from a large public university. These students volunteered for the study and experienced the Common Beliefs Survey in an unfacilitated context. Of the four students, three were identified as cases per the case criteria.

All of the participants were pre-service teachers in their final year of their teacher education program. Three were non-Hispanic Caucasian and one was mixed race. All were female and in their early 20s.

Course description and learning environment. Because participants in this cohort did not experience the CBS as part of a course, the course description will be limited to a brief description of the study-related activities in which they engaged.

Students in this cohort were first asked to fill out an online questionnaire that had primarily questions about their demographics and their experience in working with at-risk and minority students (see Appendix N). They then took the Common Beliefs Survey and reviewed the *Taking a Closer Look* resources for each belief and answered a series of questions related to the beliefs and resources. A copy of the Participant's Guide and Participant's Resource Review Log they were provided are in Appendix O.

Specifically, participants were asked to review the *Taking a Closer Look* section; answer the *Questions to Consider* for each belief; and review at least three of the resources (when three or more were available). After reviewing each resource, they were to give the "gist" of the resource; tell what about the information in the resource was new to them; give the significance of the information in the resource; and tell why they picked that resource to review. Once they completed this grid, they were then asked to respond to impact statements about the belief and the resources related to it. The possible responses for each statement were: agree strongly; agree; neither agree nor disagree; disagree; disagree strongly. The statements were the same for every belief:

- I learned new information related to this common belief;
- The information that I received through the Survey that is related to this common belief made me think about my own views/beliefs about this subject; and
- The information that I received through the Survey that is related to this common belief surprised me.

Before their phone interviews, each participant completed online a modified version of the Learning Activities Survey (King, 1998). See Appendix P for copy of the survey.

Each participant was also asked about the environment they were in when they completed the activities and how long it took to complete them. All of the participants completed the CBS and resource log over multiple days and all but one participant took at least two hours to complete the resource log with one participant taking 5 1/2 hours spread out over seven days to complete her log. All of the participants completed the CBS and resource log in the fall semester of 2010.

Student responses to the Common Beliefs Survey. Unlike the other two cohorts, participants' responses to the CBS were captured in a standardized format through the survey responses online and the resource logs. They did not participate in any sort of organized discussion about any of the beliefs. Analysis of their logs included looking at their responses to the three impact statements following their review of the *Taking a Closer Look* resources: I learned new information related to this common belief; the information that I received through the Survey that is related to this common belief made me think about my own views/beliefs about this subject; the information that I received through the Survey that is related to this common belief surprised me.

Participants were asked about the beliefs that they indicated in their logs had made them stop and think about their beliefs or assumptions. Each of the interviews was structured to look more closely at their log responses and their Learning Activities Survey (King, 1998). The data probed most deeply were those that indicated and/or confirmed a disorienting dilemma and other transformative learning phases or that

seemed to indicate that the respondent was challenged by a particular belief or issue. After analyzing their logs, responses and interview transcripts, three of the four participants in this cohort were selected as cases.

Cohort 3, Case 1 – Kate

Kate is a 22 year-old mixed-race (White and African-American) woman. She is currently a pre-service teacher in her last year of her undergraduate program at a large, public university. She would like to pursue a Masters degree in Special Education and teach at the middle school level. As a member of Cohort 3, Kate went through the Common Beliefs Survey without any facilitation and outside of any particular course.

On her questionnaire, Kate stated that she tutored at-risk 8th graders for a year, as well as tutoring 9th graders in all subjects for the past two years. In addition, she reported that all of her teacher education courses have at least mentioned issues related to teaching diverse students. Unless otherwise noted, all of the quotes in this section are taken from Kate's October 5, 2010 interview.

Disorienting dilemma and experience with the CBS. Kate indicated on her Learning Activities Survey (King, 1998) that she had “an experience ... that caused me to question my ideas about social roles in schools.” This is one of the statements on the LAS that indicate the presence of a disorienting dilemma. So, when asked about her overall response to the CBS and the *Taking a Closer Look*, she said that they really made her think about what she believed about teaching and what her goals for teaching were: “It really did give me the context or reference for my own thinking and for preparing myself for interacting with my own students in the future and the ones I am working with now during my internship.”

With regard to specific CBS beliefs, Kate had indicated that she agreed strongly with all three impact statements for each belief except for two. Given this anomaly in her response patterns for this segment of questions, Kate was asked specifically about those two beliefs (Common Beliefs #1 and #2) in her follow-up interview.

The first belief for which she did not agree strongly with all of the impact statements, was Common Belief #1 – I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching. Kate was asked about her response to this belief because it was one of the only two beliefs for which she did not unanimously “agree strongly” with all the impact statements. When asked about her response to this belief, she said that while she agreed strongly that the information related to the belief was new, she only agreed that it made her think about her own views and beliefs on the subject and she only agreed that the information was surprising. Her primary reason for this response pattern was that because she is bi-racial, she had already experienced teachers judging and making assumptions about her based on her skin color rather than getting to know her and her background, so the information did not really surprise her nor did it challenge her current beliefs.

When discussing the other belief, Common Belief #2 -- The gap in the achievement among students of different races is about poverty, not race – Kate said it really stood out to her because of Paul Gorski’s statement about White teachers thinking that they were saving their minority students. Again, she said she strongly agreed the information was new to her, but she merely agreed that it made her think about her own beliefs and surprised her. She did not say why this was the case. Still, she noted the following in her log in response to the Gorski piece about saving minority students and

their families who live in poverty: “I am witnessing this in my internship. Many students are not doing well and teachers automatically blame the parents without exploring any further.”

Her reaction to Gorski’s piece was indicative of her engagement in premise reflection and that she was experiencing a disorienting dilemma. This notion made her ask herself the following questions:

Am I really trying to save the student from their own culture? Or, am I supposed to be trying to integrate that and use that in the classroom so that they are getting the best learning environment? ... Do they (students) really have to conform to the culture of the majority or the public school culture? Is that really helpful to them? ... Do we have to fill in these traditional roles or can we step out of the box?

During the course of the interview, Kate also said she was struck by Jeannie Oakes’ video segment about racial tracking associated with Common Belief #10 -- Grouping students of different levels of achievement for instruction may benefit some students, but it can undermine the progress that could otherwise be made by higher-achieving students. She had never heard of the term “racial tracking,” but once she watched Oakes’ video she realized that she had witnessed in her own high school experiences: “We had honor ceremonies and all that stuff and probably six out of the entire class were African-American students and they were usually ... all taking team sports and physical education classes all day long. I have seen that before, but I had never heard that term before. It really pointed out to me, that this was actually a real problem.”

Another log entry of note that Kate made related to this belief was her response to Dr. Robert Slavin’s video segment about the consequences of tracking and inflexible ability grouping practices. She wrote, “I thought that grouping was something that was

supposed to happen.” This is a process reflection, but it may contribute to her overall response to this belief. She strongly agreed that the information in this belief was new to her; made her think about her own beliefs on this subject; and surprised her.

Kate was asked to think about the development of her beliefs related to teaching diverse students as a ten point continuum with the left side being not really being sure about the relevance or importance of the issues that the CBS covered, the middle being a point where the content shook her up a bit and the right side being that she completely assimilated the content and is actively changing or changed her beliefs, she said that she would put herself at the “shaken up a bit” end. When asked where she would have placed herself prior to taking the CBS, she said that she would still put herself at the “shaken up” point.

Kate was asked how she thought her experience might have differed if she had encountered the CBS in the context of a class or a facilitated discussion. She said, “It would have been different because it would have given me the opportunity to hear what other people think ... maybe it would have shaken up my beliefs a little more just to hear somebody else say it in a different way. Might have changed the way I interpreted that information.”

Variables associated with the disorienting dilemma. The variables that seem most closely associated with Kate’s disorienting dilemma are her personal attributes, and the content of the Common Beliefs Survey and some of the *Taking a Closer Look* resources. With regard to her personal attributes, Kate indicated on the LAS (King, 1998) that she was reflective in nature. When asked how that attribute may have affected her experience with the CBS she said:

It made me think about what I already believed about culturally relevant teaching practices and working with students ... it made me reflect on what I believed and it also made me think particularly about my internship now because a lot of my students are straight from Africa. They have completely different beliefs. It's made me think about how I've acted in the classroom with them and if I've been as sensitive as I would hope that I am.

Given that she was part of a cohort that experienced the CBS outside the context of a course, the learning environment variable is inapplicable to Kate's experience.

However, she did indicate on her LAS (King, 1998) that her interactions with colleagues in her classes throughout her program have really impacted her perspectives:

It's been really interesting to get the other people's perspectives because I've been in classes with people from all different parts of the country and they've had very different experiences in their education because of the environment that they grew up in. That's really opened my eyes. One of the girls I'm in class with had only ever had class with upper-middle class White students. That blew my mind because I didn't realize that was really happening anywhere.

When asked how the awareness she gained through her interactions with her classmates may have impacted her experience with the CBS and the *Taking a Closer Look* resources, she said that both of them had made her think about her own beliefs and how she acts around different groups of people (personally and professionally). And, from the outset of her interview, she credited the CBS and *Taking a Closer Look* resources with giving her a context or reference for her own thinking about the issues.

As discussed earlier, she agreed strongly that most of the content she was exposed to through the CBS was new to her and did make her think about her own views and beliefs on the issues. In some instances, the content confirmed her existing beliefs. In other instances, the content prompted her to think about changing or modifying her beliefs. She indicated as much through her responses in her log.

For instance, in response to Dorothy Strickland’s video segment that warns against assigning learning styles to children, which was a resource related to Common Belief #9 -- Students of different races and ethnicities often have different learning styles, and good teachers will match their instruction to these learning styles – Kate wrote, “I thought that was a good thing.” She had a similar response to Robert Slavin’s video segment associated with the same belief that asserts that excessive grouping has persisted despite evidence that it can be and often is counter-productive as stated earlier.

Discussion of the case. The data suggest that Kate had a disorienting dilemma associated with the Common Beliefs Survey Kate did seem to engage in a level of critical self-reflection and her responses indicate that there were some common beliefs with which she disagreed and had a perspective in line with those being advocated in the *Taking a Closer Look* resources. For example, when asked how the CBS or some of the *Taking a Closer Look* resources helped her feel more prepared to question her beliefs she responded:

The fact the teachers think they are supposed to save their students. It makes me uncomfortable. It also makes me uncomfortable the fact that a lot of the students who are from minority cultures or groups don’t feel that they are being represented or that they’re being acknowledged in the classroom, which is not beneficial to their learning at all. We really have to make sure we’re not just doing the same old stuff and excluding the same people because we’re having a whole bunch of different cultures coming in and we need to acknowledge that.

This is in line with what Dorinda Carter (2008) writes in her *On Spotlighting and Ignoring Racial Group Members in the Classroom* that Kate reviewed for addressing Common Belief #1 – I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching. This is also present in Paul Gorski’s essay (2007a) *The Question of Class* that is used as a resource for addressing Common Belief

#2 -- The gap in the achievement among students of different races is about poverty, not race – which she also reviewed.

While participating in the study, Kate seems to have toggled back and forth between process (“how”) and premise (“why”) reflection and her disposition seems to indicate that once she becomes an in-service teacher she will most likely be a critically self-reflective practitioner. Nonetheless, she had experienced a disorienting dilemma.

Cohort 3, Case 2 – Helen

Helen is a 22 year-old White woman. She is currently a pre-service teacher in her last year of her undergraduate program at a large, public university. Her focus is elementary education. Helen experienced the Common Beliefs Survey outside the context of a course.

With regard to her experience with at-risk and minority children, Helen reported that she volunteered once a week for an entire summer working with at-risk infants and children. Her teacher prep course work has included one course that covered teaching diverse students and 3-4 non-course-based learning opportunities related to equity and/or student diversity (not including this study).

Her Learning Activities Survey (King, 1998) responses, resource review log and her interview all provided indications of a disorienting dilemma. Unless otherwise noted, all quotes in this section are from Helen’s November 2, 2010 interview.

Disorienting dilemma and experience with the Common Beliefs Survey.

Helen indicated on her Learning Activities Survey (King, 1998) that she both had an experience that caused her to question the way she normally acted and had an experience that caused her to question her ideas about social roles in schools. According to King

(1998) both of these statements are indicative of a disorienting dilemma. When she was asked about these, she responded:

I have a pretty good sense of what is right and wrong to do in school ... right and wrong like in terms of how diverse students should be treated and how we need to help change the education of them. But definitely, some of the resources kind of made me feel like we need to go a little bit further than I previously thought and that not enough is being done when maybe I thought before that enough was being done on some of these cases, but it's obviously not from the information that I heard in the resources.

In her resource review log, Helen strongly agreed that seven of the thirteen beliefs made her think about her own views/beliefs about the subject, which she indicated on the impact statements for each of them. These Common Beliefs were 1, 2, 5, 7, 8, 11, and 13 (see Appendix H for list of Common Beliefs). Through the course of her interview, she was asked specifically about beliefs 2, 8, 11 and 13 because of some of her impact statement responses, as well as responses she wrote in her resource log that gave indications of a disorienting dilemma.

Helen was asked about how the information in the resources related to Belief #2 -- The gap in the achievement among students of different races is about poverty, not race -- impacted or surprised her. She responded that what surprised her was the information in the resources that said that grouping and tracking within classrooms was

Overwhelmingly, like, negative for student learning and not beneficial to students because that creates low expectations from students ... So, that kind of surprises me because all the classes that I've ever been in have used the, like, groups, the instructional groups ... and they think it's kind of like a good thing ... I haven't really thought about how negative that can be for students until watching that video.

When questioned further about this belief and its potential impact on her beliefs, Helen said, "It didn't necessarily challenge any of my beliefs ... But, I guess it did challenge my beliefs in a way. It kind of made me change my viewpoint ... students in

order for them to have higher expectations for themselves they need to be placed in, like, integrated in higher groups as much as possible.” Her response when asked how this information that ran contrary to what she had been taught made her feel, she said, “It kind of is disturbing to me ... that there’s all this evidence proving that groups like this are bad for students and, yet, pretty much all, I say the majority of classrooms still practice this.”

In her log for this belief, Helen’s responses of note were that she viewed Christine Sleeter’s video segment about low expectations, tracking and disproportionality because the school in which she student taught had a gifted and talented center in which most of the students are White. She also indicated that she agreed strongly that the information related to this belief made her think about her own views/beliefs about the subject. The discussion of this belief indicated the experience of a disorienting dilemma.

The next belief that Helen was asked about was #8 -- I try to keep in mind the limits of my students' abilities and give them assignments that I know they can do so that they do not become discouraged. Helen agreed strongly with the impact statements that the information in the resources was new to her and that it made her think about her beliefs on this subject. She only agreed that the information surprised her.

Helen took away from this belief the understanding that teachers need to evaluate what they are doing before they can look at how the students are doing because “it really starts with the kind of expectations that their teacher has in the classroom, especially for students who struggle ... They might always struggle but they could still, if the teacher changes the way they look at the student what they expect, then they can still do a lot more than they would have before.”

When asked how the information related to this belief impacted her, she said,

“It’s still really hard not to just find yourself falling into that because the other teachers do it and my mentor teacher sometimes does it ... but it made me realize how detrimental that could really be to the student. And, it really ... the students can be impacted so much just by like the teacher changing their expectations for that student and that making sure the students are aware of them.”

When asked how she felt when she encountered this content that was contrary to what other teachers, including her mentor, were doing she said again, “It’s actually frustrating but I mean I’m glad I’m encountering this information now. When I do, when I do become a teacher, I can make sure that from the beginning I do not carry on these same practices.”

The log entries of note by Helen for this belief were as follow:

- For the Sonia Nieto video segment about the deficit views educators often have about their students, Helen wrote that what was new to her was, “I often find myself thinking about the deficits that children have, so I am going to try and think of students only as their strengths.”
- For the second resource she reviewed, *The Educator Check-In on Effort* (NEA, 2005), which is a checklist for teachers to self-assess the range of instructional strategies they use to learn about and meet the needs of their students, Helen wrote: “I found myself wondering if I do the things mentioned on the checklist often enough. I am going to print it out for use when I student teach so I can keep track of how well I am following the checklist.”
- She also agreed strongly that the information related to this belief made her think about her own views/beliefs about the subject.

Belief #11—Before students are asked to engage in complex learning tasks, they need to have a solid grasp of basic skills—was the next belief discussed with Helen. She had indicated in her log that she was unfamiliar with the term “re-mediation” that was discussed in the only resource for this belief, a video segment by Dr. Kris Gutierrez about “re-mediation” as opposed to the traditional form of “remediation.” When asked if the

resource had helped her understand the term, she said that she was a “little bit fuzzy” after watching the video. Helen was also asked if she had encountered the situation that Dr. Gutierrez talked about, she said:

Yeah. There are instances where the ‘lower or struggling’ students in our class are having trouble catching up. And, the teacher instead of trying to present it in a new way would just often (have the student) go and work with the para-educator with like extra support. I’m sure they’ve a lot of time given, end up almost giving them the answer instead of really presenting it in a new way so that they come to understand it themselves ... Definitely the same maybe five or six students in the class who are either ESOL or struggling learners.

There were no other notable responses in Helen’s log for this belief other than she agreed strongly that the information related to this common belief made her think about her own views/beliefs about the subject. Her discussion of this belief did seem to contribute to her disorienting dilemma because she described thinking about and questioning roles in the classroom that this belief was addressing.

The final belief that Helen was asked about was Belief #13 – Talking about race with my colleagues could open up a can of worms; little good is likely to come from it. The information related to this belief appears to have confirmed her existing beliefs about this subject: “I, as far as talking with my mentor teacher and the other educators in the building and the other student interns, I don’t really feel uncomfortable talking about race, and race is such a big issue in my school because it is like a really diverse school ... But, I can see how it could be an issue like maybe when I’m at a different school it’s an issue there.”

When asked how the information related to Belief #13 made her feel as a pre-service teacher getting ready to go into the classroom, she said:

It's a little overwhelming that I feel like there's a lot of weight on my shoulders to make sure that I don't reinforce any of these stereotypes or let them negatively affect my students. And, that I really need to do a lot and be proactive about making sure that students don't get slighted because of their race ... That's overwhelming definitely to me, at the same time it's important and it's what the children deserve, so I'm up to it. It is just a little overwhelming.

However, when asked if the CBS and the related information contributed to this sense of disorientation or overwhelming, she said that it just made her more aware of these issues. Her specific responses of note to Belief 13 were her response to Mica Pollock's video segment on how to introduce the difficult conversation about race and Robert Slavin's video segment about talking openly about racial issues in schools. To Dr. Pollock's segment, Helen wrote that she had never thought of using the tips outlined in the segment, but that they made sense to her. To Dr. Slavin's segment, she wrote, "I was only thinking about race conversations in terms of students, but he (Dr. Slavin) mentioned how it is important to explore race relations among staff as well." Helen also agreed strongly that the information related to Common Belief #13 made her think about her own views/beliefs about the subject.

Helen was asked how she thought her experience might have differed if she had encountered the CBS in the context of a class or a facilitated discussion. She said:

I think it would have been interesting to get kind of like ... my peers' and my professors' take on it ... all I had were my personal experiences and I am sure ... in the class a lot of my peers would have totally different aspects and it would be really kind of rich conversation and that would have been ... an even more rewarding experience than it already was.

Variables associated with the disorienting dilemma. The variables most likely associated with Helen's disorienting dilemma were her personal attributes, experiences in her teacher prep program and the content related to the Common Beliefs Survey. These

variables are most likely also associated with some of the transformative learning phases she indicated that she had experienced.

With regard to her personal attributes, Helen indicated on her Learning Activities Survey (King, 1998) that she was reflective in nature. When asked how this trait impacted her interaction with the CBS content, she said:

I found myself with all the beliefs relating it back to, what I have seen or what happened to me in my either observations in school or now my student teaching experience. Like I said, I am in a very diverse classroom and I see a lot of these things happening and a lot of these common beliefs are very visible to me. Like, pretty much every resource, every belief I was reading about, I definitely reflected upon it and how I'd seen it personally or how I can personally try to change it in my situation I am in right now.

When she was asked how she handled discovering information through the CBS that was inconsistent with either her beliefs, what she had been taught, or what she observed in her teacher prep program, she responded:

It's a little unsettling to know that I have been a part of some of these practices in my teaching experience that I'm now finding out are not good or not beneficial to them (the students). So, that definitely is a little unsettling to me. But, it kind of made myself feel a little more comfortable with the fact that I still have time to change ... So, I guess even though I was worried about it, I kind of reassured myself that there is still time to change this and kind of use what I have learned from all of the resources in my classroom now.

She was asked to place the current status of her beliefs about teaching diverse students on an imaginary continuum with the left side not really being sure about the relevance or importance of the issues covered by the CBS content, the middle being a point where the content made her start questioning her beliefs (being "shook up") and the right side being that she completely assimilated the content and is actively changing or changed her beliefs. Helen said that she would put herself at the mid-point between

center and right. She said, “Because although I really do agree with almost all of the information, a lot of my beliefs beforehand matched up with a lot of them already, not necessarily changing my beliefs. But, I do agree with almost everything that was presented in the material.” When asked where she would place the status of her beliefs on the continuum before she participated in the study, she said that they would be much closer to the middle.

Discussion of case. The data suggest that Helen experienced a disorienting dilemma and that she was pre-disposed towards one from the beginning of the study. On her Learning Activities Survey (King, 1998), Helen also stated that after taking the Common Beliefs Survey she had experienced a moment when she realized that her values, beliefs, opinions or expectations had changed. She wrote: “After reviewing the resources for some of the common beliefs, I realized that although I am very aware of students’ differences in and out of the classroom, I do not approach the way I teach these students very differently. Since this realization, I have tried very hard to take into account each student’s background when teaching them and also dealing with behavior issues.”

Helen seemed to have engaged in both process (“how”) and premise (“why”) reflection throughout the study in some cases reflecting on her practice based on certain common beliefs and related resources and in other cases reflecting on her beliefs: “I think more of my ideas they stayed the same, but several instances I remember thinking, ‘Oh, you know what? I think that’s a much better way.’ ... in some instances I think it’s like the grouping of students technique, but other instances it actually was about the underlying beliefs and how that should change.”

When asked about those instances where she felt her assumptions and beliefs had been challenged and how she would address the challenge, she said:

It's hard, I know it is so hard to change the system. But, I think where I'm going to start personally is slowly starting to when I do my lessons now during the semester ... I am going to try and practice these. But, definitely next semester ... that is where I am going to start with trying out some of these ideas and techniques and really trying to be comfortable with the beliefs (and the resources) and how to implement them in school.

Helen, when asked about her critical reflection intentions, said that she did want to reflect a little more critically on her beliefs and assumptions and found herself during the study wanting to get more information about some beliefs so that she could go about turning the beliefs into her practices. Interestingly, she said turning the beliefs into her practice. The assumption is that what she meant was taking the resources related to the common beliefs and integrating them into her practice.

She also indicated that she planned to engage in critical discourse with other students and some of her professors moving forward to help sustain the critical self-reflection she has undertaken: "It is definitely interesting to hear what my peers think ... since we're not all teaching in the same place, so it is especially helpful this year (to hear) what they have to say and their take on it and the personal experiences ... with their teaching experiences."

In general, Helen seemed to be pretty comfortable with her beliefs and assumptions about teaching diverse students. However, she conveyed a sense of commitment to on-going reflection to ensure that her beliefs and assumptions are aligned with those that underlie instructional practices that will help all of her students succeed. She also expressed a commitment to ongoing critical discourse with her instructors and colleagues, which is key to transformative learning (Mezirow & Associates, 2000).

While much of her reflection was process reflection, she did indicate enough premise and critical reflection to indicate a disorienting dilemma. Further, the CBS seemed more to shine a spotlight on the disconnect between her beliefs and practices than actually affecting changes in her beliefs. This resulted in her realizing in most cases that she needed to change her practices in order to bring them more in line with her beliefs about teaching diverse students instead of really needing to change many of her current beliefs.

Cohort 3, Case 3 -- Molly

Molly is a 22-year-old White woman. She was a pre-service teacher in her last year of her undergraduate program at a large, public university. Her focus was elementary education with an emphasis on Social Studies. She experienced the Common Beliefs Survey outside the context of a formal course. She did not indicate that she had any experience with at-risk students, but she had at least three courses that addressed the topic of teaching diverse students and two non-course-based learning opportunities related to equity and/or student diversity (not including this study).

Her Learning Activities Survey (King, 1998), resource review log and interview indicated that she experienced a disorienting dilemma related to her experience with the Common Beliefs Survey and some of the resources in *Taking a Closer Look*. Unless otherwise noted, all quotes in this section are from Molly's interview on December 14, 2010.

Disorienting dilemma and experience with the CBS. Molly indicated on her Learning Activities Survey (King, 1998) that she both had an experience that caused her to question the way she normally acted and had an experience that caused her to question

her ideas about social roles in schools. According to King (1998) both of these statements are indicative of a disorienting dilemma. When she was asked about these responses, she referenced specific Common Beliefs:

Just with lots of things like the grouping and recognizing kids' races and ethnicities and things like that and with the parent involvement. There are a lot of things where I guess it was new information and really made me think about 'Well, I had thought this way and now I see it another way.' So, it helped me really see both sides again. It just like opened up some new ideas for me ... The race, social roles and with the parents and there's also something with special education. It really made me think about those types of roles differently and how you always just see it ... Well, I've always seen it one way and now I can see how, maybe it's not the best thing or maybe it needs to be better depending on that role.

In her resource log she indicated that she agreed strongly that only two of the 13 Common Beliefs made her think about her own views/beliefs about the subjects. The Common Beliefs with the "agree strongly" rating were #9 and #12. Based on her log responses that indicated some level of challenge or questioning of beliefs, Molly was asked about the following beliefs during her interview: 1, 5, 7, 8, 9, 10, and 12 (see Appendix H for list of Common Beliefs).

Molly was asked about how the information in the resources related to Belief #1 -
- I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching – impacted or surprised her. She responded:

None of my classes or anything we never really talked about like talking about race or ethnicity. So, it was always something like, 'Oh well, you just don't see it ... you just treat every kid the same.' So I was surprised after seeing that stuff and it was like, 'Oh well, I guess then if you're just ignoring the fact that these kids are different and they are different races and they have different cultures. And that those need to be validated.' I never thought of it that way, I guess ... It made me realize that I shouldn't just not even approach the subject--that I should approach it. So, I think it changed the way I would probably interact with kids in the classroom. Whereas, I would try to avoid things like that before and probably now I would not be so weary of it."

Molly's discussion about this belief indicated a disorienting dilemma. The log entries of note by Molly for this belief follow:

- For the Linda Darling-Hammond video segment, Molly responded that she never thought about reaffirming students' racial and cultural positive identities in the classroom: "I never thought about doing this in a classroom before."
- Molly read the Christine Sleeter interview article *Diversity vs. White Privilege*. To this resource she replied, "I do not necessarily see this issue of White supremacy in the schools."
- She agreed that the information she received through this belief and its resources made her think about her own views/beliefs on the subject.

The next belief Molly was asked about was Belief #5 – When students come from homes where educational achievement is not a high priority, they often don't do their homework and their parents don't come to school events. This lack of parental support undermines my efforts to teach these students – was the next belief discussed with Molly. In her log, Molly agreed that the information was new and that it made her think about her own beliefs/views on the subject. However, she disagreed that the information surprised her. When asked why the information was not surprising to her, she said that she had heard some of the information about this subject before and that actually some of the new information did surprise her.

Specifically, she said the idea that some parents might feel nervous about coming into the school surprised her. She had never really considered that before. What made her nervous per her log entry was the information in Jeannie Oakes' video segment about how teachers need to develop the capabilities to engage in cross-race interactions with families: "If I remember the video correctly, she made it (these interactions) sound like it was really hard ... It made me nervous because I have never really thought about it because I guess I thought that I was already pretty good at communicating with other people no matter their race or whatever differences they have." Molly also said, "I just

always assumed that parents would feel comfortable coming into a classroom as long as the teacher was comfortable with them. So, the fact that there's other things that influence why a parent might be nervous besides just the teacher. That was, I guess, kind of an assumption that got changed."

Another of Molly's log entries on this belief seemed to indicate that this belief may have unsettled her a bit was related to the information in Jacqueline Jordan Irvine's video segment about how teachers need to enlist parents' involvement, rather than assuming that they don't care. In response to this segment Molly wrote, "When I was young, my mother was very busy and was not able to be heavily involved in my schooling. This makes me wonder what my teacher thought of my family."

The next belief Molly was asked about was #7 -- I believe that I should reward students who try hard, even if they are not doing well in school, because building their self-esteem is important. The information related to this belief appears to have confirmed her existing beliefs about the subject. While she had checked that she agreed the information was new, surprising and made her think about her beliefs/views, she said in her interview, "I guess it was just more of new information than surprising information ... it kind of confirmed a lot of my own beliefs and then it also made them a little bit stronger ... It just really made it more of a concrete idea for me."

Other notable responses from Molly related to this belief were her responses to the information in Robert Slavin's video segment on high expectations for student learning and the information in Jeff Sapp's (2006) *Rigor + Support = Success* material. In response to the Slavin video, Molly wrote, "Thinking of special education in positive and negative ways has never really been brought up to me before." Her response to the

Sapp material was: “This formula seems so simple, but after reading the article I can see how this would work. I love the idea.”

Belief #8 – I try to keep in mind the limits of my students' abilities and give them assignments that I know they can do so that they do not become discouraged – was the next one discussed with Molly. The discussion on this belief was brief because Molly said that the information related to this belief also confirmed the beliefs she already had when asked if it challenged her beliefs at all: “I don’t think that it challenged them. I think it probably more like confirmed them.” Nonetheless, she agreed that the information was new and made her think about her views/beliefs, but she disagreed that the information surprised her.

The discussion on the next belief –Students of different races and ethnicities often have different learning styles, and good teachers will match their instruction to these learning styles – was also brief. Molly had checked in her log that she agreed that the information related to this belief was new and surprised her. And, she agreed strongly that the information made her think about her own views/beliefs about the subject. When she was asked specifically why the information surprised her, she said:

I think that the most surprising thing to me was that sometimes we shouldn’t assign learning styles because so many times it’s viewed as a positive thing usually knowing how a kid learns so you can get them to learn it. It’s usually looked at as such a positive thing and then she (Dorothy Strickland) explained that if we assign them to something, then it kind of limits them in a way. It was surprising because I had never thought of that and it makes sense ... it was like the opposite side of the argument and I’ve never really been exposed to it before.”

She also noted this surprise related to learning styles in her log: “They stress this so much in my classes that it is surprising to hear that it could have negative effects as well.” Molly also said that the information challenged her beliefs and assumptions

because “I’d always thought that when I have my own class I would really try to make sure that I knew their learning styles and adapt to those ... but now I think that maybe instead... I would just expose them to all the different kinds.”

Molly had a similar reaction when she discussed Belief #10 - Grouping students of different levels of achievement for instruction may benefit some students, but it can undermine the progress that could otherwise be made by higher-achieving students. She agreed that the information in the resources was new to her, challenged her to think about her views/beliefs on the subject, and surprised her. When asked why the information surprised her, she responded, “it was surprising that I hadn’t heard of this before I guess because it makes sense. I mean the whole ability grouping versus achievement grouping and grouping kids based on their prior achievement and how these things can be really, actually negative, had never really been explained to me before ... It was surprising to hear the other side.”

She confirmed that the resources in this belief challenged her beliefs and assumptions while to some degree also confirmed a belief that she had: “I never really liked the idea of grouping kids and groups. So, in a way, it kind of confirmed that belief I had, but at the same time it challenged the ideas that I had been taught.” When asked how she felt about the dissonance between what she had been taught and what the resources were saying, she said, “I guess I was kind of wondering why I haven’t been taught it because I just finished all my methods courses and I took eight million classes at the University ... So, it kind of made me feel like my classes were almost a little biased in a way towards one style of teaching. And, I don’t know. It kind of made me worried a little bit I guess because I was never exposed to this other side.”

Molly was asked how this concern might affect her moving forward, she responded, “I think that I’ll probably be a little less likely to take everything by heart. I’ll just try and figure out and feel it out on my own a little bit ... So being more flexible about it and willing to make changes and stuff and not always just sticking by what I have been taught.” To this response, Molly was asked if this experience had triggered any critical reflection. She answered:

I guess it does make me think critically about my own assumptions and those things I have been taught just because I guess it’s just you always try to stay in your comfort zone and surround yourself with things that confirm your own ideas. So, in a way this kind of helped me to see the other side on a lot of things that I have assumed or have been taught. And, I think that just seeing all of that in a pretty short period of time, will probably help me to remember that and take it with me through other things and remember that there’s always another side of things and that just because I think one thing or I’ve been taught one thing doesn’t mean it’s always right or the way to do it.

The final belief discussed with Molly was Belief #12 - With all the pressures to raise student achievement, finding and using examples of the cultural, historic and everyday lived experiences of my students takes valuable time away from teaching and learning what matters most. Molly agreed strongly that the information in the resources for this belief was new and that it made her reconsider about her own views/beliefs on the subject. She agreed that this information was also surprising. When asked about her reaction to this belief she said, “I have never heard anything like this. Every time testing comes up it’s one of those things that’s like, ‘Oh, you just have to figure out how to deal with it.’ ... So, this was nice. It was good to just get a little bit of ideas flowing about how you would fit both of these things in ... because I never really liked the testing ... So, it kind of confirmed some of the beliefs I had ... It made more sense of everything, I guess.”

Molly said that the information had not challenged any beliefs that she had in this area. Instead, she said, “It was just new and I’ve just never ever been told like, ‘Okay, you can do this in this way.’ It’s just always been like you’ll find a way to deal with it ... So, that was surprising.” However, it appears her whole perspective about professors as unquestionable authorities and reliable transmitters of knowledge has been shaken.

Variables associated with the disorienting dilemma. The variables most likely associated with Molly’s disorienting dilemma are her personal attributes, her experiences in her teacher prep program, and the content related to the Common Beliefs Survey. She also indicated on this survey that she frequently reflected upon the meaning of her studies for herself. When asked how this attribute of reflectivity may have affected her experience with the CBS she said, “... throughout the whole thing, I was always thinking and reflecting back on my intern class or my methods classes or things that I have learned before. So, constantly reflecting on, ‘Well, I’ve seen this.’ Or, ‘I’ve heard this.’ Or, ‘I’ve done this.’ really helped me to apply it in my own life, I guess.”

When asked how she felt when she encountered information about best practices in the CBS that contradicted her beliefs she replied, “I guess it kind of made me worried. Or, I don’t know. Worried maybe is not the word. It made me just think really critically about okay why I’ve been doing this and I shouldn’t have been doing this. So, I would think about how could this have been bad?”

With regard to the information she encountered that worried her, she said that moving forward “I think I’ll probably apply it now that my beliefs I guess have changed a little bit or I have new ones. I think that I’ll be very likely to apply these new methods

and ideas just in general, in like every day. Not just in the classroom necessarily, but in my everyday interactions with people.”

She was asked to place the current status of her beliefs about teaching diverse students on an imaginary continuum with the left side being not really being sure about the relevance or importance of the issues covered by the CBS content, the middle being a point where the content made her start questioning her beliefs and the right side being that she completely assimilated the content and is actively changing or changed her beliefs. Molly said she would place herself somewhere in the middle, “probably like a five or six (on a scale of 1 to 10). I think that it (CBS) definitely got me thinking about a lot of things. But the fact that it confirmed a lot of other ones means that it didn’t really alter my perception of everything altogether.” When asked if the CBS did shake her up on some things she said, “Yeah. There were some things that did change.” And, she said that before she took the CBS she probably would have placed herself at a 4 or 5: “Just because I hadn’t had a lot of experience necessarily in the classroom and that’s pretty much the only way that I’ve been exposed to these types of things.”

Molly felt like she would have learned more if she had experienced the CBS in a course or a facilitated discussion. When asked what her biggest take away from the experience was she responded, “I guess the biggest thing I took away is that everything is not the way I always think it is because I’ve always been willing to believe my professors or my mentor teacher or whoever about other things because I feel like they obviously have more expertise. But, just knowing that they might not even be worried about things, I shouldn’t believe everything they say.”

Discussion of the case. The data suggest that Molly experienced a disorienting dilemma. For instance, when asked about her process of reflecting on her beliefs as compared to those of her colleagues', she said:

Well, I guess the fact that there are other sides to everything and everybody has a different perception of everything, really. So, that alone, people kind of have to question their own beliefs, their own assumptions all the time with everything just because everybody sees things differently. I think somebody who is more open to other ideas and who's like willing and cooperative and interested in what other people think would be willing to question their own beliefs.

Another example of Molly's premise reflections came when she was asked about a particular question on the Learning Activities Survey (King, 1998) in which she selected the response, "I thought about acting in a different way from my usual beliefs and roles. Molly said: "That especially with the parents again and the race and ethnicity. It just made me think about maybe I'm not always like you know, don't always have to be the authority figure ... It brings to light a lot of other roles that a teacher has other than just the teaching, other than just learning and providing information."

Molly was asked if this was, from her perspective, about learning new techniques or if it was an extension of new beliefs and/or questioning the assumptions she had. She responded, "I think it's probably both. The techniques helped me to see how I can do it. The fact that I question my own beliefs and learn new things and principles ... that really is the reason why I would even apply the new techniques." Molly indicated on her survey that she did not experience any change in her values, beliefs, opinions or expectations related to the CBS. When she was asked about this, she said that she would probably change her response: "I guess I would probably change that answer. I think ... most of the beliefs that I went through did confirm things I already had thought. But there were a couple actually that did ... So I guess I'd change that response."

Overall, Molly's experience with the CBS seems to have prompted her to think more critically about her beliefs and assumptions about teaching in general and about the things she had been taught during her teacher prep program, specifically. While she repeatedly said that the information made her think differently about the various pedagogical techniques included in the CBS, her biggest takeaway from the experience was to be more skeptical about information that she has received and will continue to receive about teaching. This seems to be the foundation of her disorienting dilemma.

Throughout the interview, Molly's reflected a lot along the lines of content- ("what") and process- ("how") type critical reflections. She was reflecting more on how she could incorporate the new information into her practice. However, the repeated scenario that the information she was getting from the CBS contradicted what she had been taught seems to have opened the door to premise reflection and critical self-reflection of some of her assumptions. Her experience with the CBS strongly challenged her assumptions about the unquestionable authority of the people who had provided her with the bulk of her knowledge about as indicated by the amount of premise reflection she conveyed around this issue. At this point, her disorienting dilemma is less about her beliefs and assumptions about teaching diverse students than it is about her assumptions about key authority figures in her teacher prep process. One might wonder if this change in perspective will also impact her perspective about her role as a teacher and her related instructional practices once she enters the classroom full-time.

Nonetheless, this experience has the potential to alter the way she will receive and process information related to teaching moving forward with possible repercussions for her future instructional practices as they relate to minority students. As Mezirow (1991)

writes, this experience has possibly changed at least one structure of “habitual expectation to make possible a more inclusive, discriminating, and integrative perspective ... making choices or otherwise acting upon these new understandings” (p. 167).

The information in the CBS also confirmed some of her existing beliefs and she had said that some of her beliefs ran counter to what she had been taught. In these instances, she appears to have subordinated her beliefs to the information she was being given. So, when she encountered information in the CBS that validated her existing beliefs and invalidated, or at least called into question, the contradictory information she had received, she seemed to feel vindicated.

This dynamic of empowerment and healthy skepticism may lay the foundation for Molly’s continued perspective transformation through on-going critical self-reflection once she graduates from her program in May 2011 and enters the classroom. The dynamic also exemplifies the independent thinking that is the goal of transformative learning. As Mezirow & Associates (2000) wrote, “fostering greater autonomy in thinking is both a goal and a method for adult educators” (p. 29).

Discrepant Cases

In order to strengthen the case that the participants with validated disorienting dilemmas are *bona fide* cases, two participants without disorienting dilemmas were selected to be included in this study. This analysis of the discrepant cases shows the contrasts between the CBS experiences of participants who were selected as cases and those who were not. Analyses of discrepancies can also lead to new discoveries in the data. An interesting discovery from this analysis has been that the discrepant participants by their own admission did not have much interest in the information in the CBS and the

Taking a Closer Look resources and did not put much effort into taking the Survey. Neither of these aspects were explored in the cases of the participants with validated disorienting dilemmas because it was not mentioned by them. It could, however, have been a variable associated with the discrepant cases' lack of disorienting dilemma.

There were four participants total who were deemed to not have validated disorienting dilemmas. The decision to only include the two cases was based on the determination that these two cases could adequately illustrate the array of experiences of participants who did not have valid disorienting dilemmas.

Following are descriptions of two participants who did not experience a disorienting dilemma. One was categorized as "possible disorienting dilemma." The other was categorized as "no disorienting dilemma."

Possible Disorienting Dilemma -- Carrie

Carrie is a White, 22-year old pre-service teacher pursuing her Master's Degree and teaching certificate in Special Education at a large public university. She is in her first year of the program and recently completed Dr. Brown's, "Introduction to Special Education" course. It was in this class that she worked through the Common Beliefs Survey. She has had one course on teaching diverse students and did volunteer tutoring with at-risk students for a semester

Carrie indicated on her Learning Activities Survey (King, 1998) that she experienced a disorienting dilemma related to her experience with the Common Beliefs Survey. She also reported that she realized that she had recently experienced a change in her values, beliefs, opinions and/or expectations. The follow-up interview with Carrie

did not substantiate these reports of experiences. Unless otherwise noted, all quotes in this section are from Carrie's November 9, 2010 interview.

Experience with the Common Beliefs Survey. Carrie was asked about her change experience with her beliefs and she said "... I guess I don't think that they changed as much as I guess they were broadened. They didn't change like to be a complete opposite of anything. I just, they changed and they grew and they ... I learned different perspectives than I had thought of. But was still on the side, the more so side of the whole tolerance and diversity side of things."

When writing about the elements of perspective transformation, Mezirow (1991) talks about the ability of a person to try on another's points of view. They are subject to continuing change as we reflect on either the content or process by which we solve problems and identify the need to modify assumptions. This is achieved through content and process reflection, which are precedents to premise reflection and the critical self-reflection that are necessary to the disorienting dilemmas and perspective transformation. While content and process reflection of instrumental learning may lead to improved performance within educators as technicians (e.g. delivering content in a particular way or assuring fidelity of implementation of curriculum in the classroom), it does not equip educators with the insights and motivations necessary to critically reflect on the assumptions underlying content and process. It does not readily facilitate educators' achievement of autonomous thinking and the self-authoring mind (Mezirow & Associates, 2000; Kegan, 2000), which are goals of transformative learning (if they have not already achieved some level of it).

As such, Carrie was asked about the statements that she checked on the LAS that were indicators of a disorienting dilemma (“I had an experience that caused me to question the way I normally act”; “I had an experience in the course that caused me to question my ideas about social roles in schools”). The experience that Carrie related to the first statement had to do with a conversation during one of Dr. Brown’s three face-to-face class meetings in which students started sharing their opinions on various subjects. Carrie said that that is the point at where she started questioning her values and beliefs: “it made me solidify my values and beliefs more than I had I think before we had that conversation. I heard other people’s points-of-view and I realized what I thought was more important to me.” Here again, Carrie was engaged in content reflection by “trying on” other’s points of view and comparing them to her own rather than engaging the level of critical self-reflection associated with perspective transformation.

When Carrie responded to the second statement, she related a conversation during one of the face-to-face meetings in which several para-professionals in the group were sharing their perspectives on the dynamics between fully-licensed educators and themselves: “And, so they’re just giving their perspective compared to what I had always thought about and just working more with each other and figuring out those roles was more, I think was the experience I was referring to there ... I guess I had never really seen that side of school before so it made me question how people act and how they should act and how they actually do act.” This is an instrumental learning lens through which she is analyzing information. Carrie was focused on how to improve teaching and learning by improving communication, collaboration and performance among staff members (Mezirow, 1991, 1997; Mezirow & Associates, 2000; Kitchenham, 2008).

Hence, Carrie's accounting of a disorienting dilemma is not supported.

Theoretically, the disorienting dilemma can be the result of an external event that causes a sense of internal imbalance. These can be through a sudden, epochal incident or through an accretion of information and experiences that suddenly "click" (Mezirow, 1991; Cranton, 2006; Herbers & Nelson, 2009; Baumgartner, 2001; Imel, 1998; Kitchenham, 2008; Brock, 2010). Either way, it is often times painful and perplexing for a person because it challenges their core beliefs and assumptions about themselves and the world around them (Mezirow 1991; Herbers & Nelson, 2009). It sits squarely in the domain of communicative learning. Carrie's accounts had none of these attributes, so it is unlikely that she experienced a disorienting dilemma of the epochal kind detailed by Mezirow. It is conceivable, though, that her experience with the CBS may contribute to an accretion process whereby experiences and knowledge accrued over time to and build up the momentum to experience disorientation at some point in the future.

Carrie checked on her LAS (King, 1998) that "as I questioned my ideas, I realized I still agreed with my beliefs or role expectations." This comports with her comments during her interview that she had an opportunity to "solidify" her beliefs during the course. She reiterated this when discussing one of the course assignments that focused on teachers as change agents. When asked if the CBS content was useful to her in this assignment, she said that it was because "I already had figured out what my beliefs were and why I felt that way. So it (the CBS) made it easier for me to come up with other arguments and other sorts of things because I was able to, I already knew the reason that I was feeling the way I was feeling." It appears that a big part of Carrie's experience with the CBS was informational and instrumental. She was able to use the content in one or

more of her assignments even though it did not move her into the position of experiencing a disorienting dilemma. This contradicts the LAS (1998) initial indicators pointing to a disorienting dilemma.

It bears noting that during her interview, Carrie realized that she had been approaching the CBS incorrectly. She had thought that the common beliefs listed were the best practices to be emulated rather than beliefs to be refuted. This may have been the case for Carrie throughout Dr. Brown's course based on Carrie's online postings around the CBS and Dr. Brown's responses to them. For instance, Carrie posted three common beliefs in response to the assignment that required students to "Write about three of the beliefs that surprised you or resonated strongly with you or somehow provoked your thinking."

Carrie made several other statements throughout the interview that indicated reflection, but not premise reflection. For instance, her response to Common Belief #1: I don't think of my students in terms of their race or ethnicity. I am color blind when it comes to teaching. Carrie said that she was glad to read that belief and the resources associated with that belief because: "There are some parts of it where I feel that it would be very hard to implement and kind of get past other people's beliefs that they've had for so long. But, I like the idea of not taking the route that's always been said of being color blind because I don't feel that that's working and just trying new ways to do things."

As one of her three common beliefs to discuss, Carrie posted Belief #3: Teachers should adapt their instructional practices to the distinctive cultures of African American, Latino, Asian, and Native American students. To this she commented that: "... I feel that this is against what we are trying to accomplish by creating culturally responsive

instruction. While this would focus on the minorities of our culture, the instruction would ignore the European American point of view.” To this, Dr. Brown responded: “I’m not sure they’re saying that you should teach in one way, honoring one culture ... For the second one (belief), I think the authors too are challenging this belief.”

This misunderstanding about the Common Beliefs Survey could possibly have diluted any potential for a disorienting dilemma and/or movement towards transformative learning. Overall, however, Carrie had an instrumental approach to her learning, including those exercises and assignments that Dr. Brown designed to promote and support critical reflection.

Among the CBS-related activities that Carrie identified as contributing to the changes she reported on the LAS (1998) were the survey content accessed online; personal reflection; deep, concentrated thought; writing about (her) beliefs. When asked specifically about the personal reflection activities and Dr. Brown’s responses to them, Carrie responded that “they were worth probably, I think three to five points so not a huge part of our grade at all. She just kind of gave feedback for them ... she was generally very supportive about things and me working through the thoughts so she kind of questioned why a lot: ‘Why do you feel that way?’ So I guess it just made me think about even more and push myself even farther to try to figure it out, to solidify it. I thought I kind of had solidified it, but her questions made me think about it more.”

There was little indication in the interview that took place on 11/9/10 that she had experienced a disorienting dilemma. To be fair, there were still six weeks left of the semester at the time of her interview; it is conceivable that her views could have changed later in the course.

Variables impacting experience. As detailed in the previous section that included a description of all the courses in the study, Dr. Brown seems to have provided all of the ingredients for a successful transformative learning experience. So accounting for the facilitation and Carrie's misunderstanding of the CBS's procedures, what other variables could realistically have impacted her experience with the CBS and her placement on the continuum?

The online, asynchronous learning environment for the course may have impacted Carrie's experience with the CBS. When asked what she thought about the this particular arrangement, for she responded, "I think the online environment kind of makes it a little bit uncomfortable just because a lot of those feelings are things people feel very strongly about without really knowing any of the non-verbal cues or social cues or anything that you could have face-to-face ... it's kind of create a response and hope that you're not upsetting someone or pressuring someone. So, I think that we kind of missed out a lot on that." If Carrie was uncomfortable in the predominantly online course, some of the conditions Mezirow (1991) outlines for free and full participation (e.g. ability to weigh evidence and assess arguments objectively; greater awareness of the context of ideas; and, changes in their assumptions) may not have existed for her despite their felt presence for some of her other classmates.

Carrie reports that she is a reflective person and likes to "question a lot of things and why I'm doing things." Her age, relative lack of experience in the classroom, and where she is in her degree program could be variables that tempered her experience with the CBS and subsequent move towards transformative learning. As Daloz (2000) writes:

“Deep change takes time, strategic care, patience, the conviction that we are not working alone, and the faith that there is something in the universe” (p. 121).

That Carrie did not experience a disorienting dilemma when encountering the Common Beliefs Survey in this course may mean that her perspective with regard to teaching diverse students aligns with the beliefs and practices being advocated by the CBS. Or, the absence of the disorienting dilemma may be related to her being at the beginning of her program and she might experience one later in her program. She did discount the importance of the CBS exercise in the context of the course. When asked about how Dr. Brown responded to her postings about the common beliefs she chose, Carrie responded, “They were worth probably I think three to five points so not a huge part of our grade at all.”

Regardless of the reason for the absence of the dilemma, Carrie’s experience did not meet the criteria set forth for determining a disorienting dilemma and qualifying her as a case. But, given the amount of content and process reflection she did express, she may experience a disorienting dilemma before her program is over in several years.

No Disorienting Dilemma -- Amy

Amy is a 21-year-old White woman. She is currently a pre-service teacher in her last year of her undergraduate program at a large, public university. Her focus is Math education. Amy experienced the Common Beliefs Survey outside the context of a course.

With regard to her experience with at-risk and minority children, Amy reported that she tutored first graders in reading/writing for two years, tutored fourth graders in Math for one year and taught music classes in El Salvador for three weeks. She has not

had any courses that formally included curriculum about teaching diverse students, but she said that every class had something about it in them.

Neither her Learning Activities Survey (King, 1998), resource review log or her interview provided any indications of a disorienting dilemma related to the Common Beliefs Survey and some of the resources in *Taking a Closer Look*. Unless otherwise noted, all quotes in this section are from Amy's October 5, 2010 interview.

Experience with the Common Beliefs Survey. Amy indicated on her Learning Activities Survey (King, 1998) that she did not identify with any of the statements on the survey. She also responded "no" to the question: "Since taking this course/survey, do you believe you have experienced a time when you realized you're your values, beliefs, opinions or expectations had changed?" (A "no" response to this question on the survey automatically moved the participant into the segment of the survey about reflectivity.)

When she was asked about how the CBS and the resources have impacted her beliefs about teaching in general and teaching diverse students specifically, she said, "Honestly, it didn't impact my beliefs at all. It didn't change anything that I am going to be doing." Even though Amy was pretty clear up front that she did not feel that her beliefs or assumptions had been impacted by the CBS and her responses on the LAS corroborated this, she was still asked about some of her responses in her resource review log to further confirm the lack of disorienting dilemma. In her resource review log, Amy disagreed or disagreed strongly that the information in ten of the thirteen beliefs surprised her. She agreed that the information in Common Beliefs #5 and #12 did surprise her (see Appendix H for list of Common Beliefs). She agreed that five of the beliefs and resource sets (# 2, 4, 5, 10, 12) made her think about her own beliefs. Through the course of her

interview, she was asked specifically about Beliefs #5 and #12 because they were the only two beliefs that she at least agreed with all three impact statements.

Amy was first asked about the information in the resources related to Belief #5 – When students come from homes where educational achievement is not a high priority, they often don't do their homework and their parents don't come to school events. This lack of parental support undermines my efforts to teach these students. Amy had written that in her resource log that Jacqueline Jordan Irvine's video piece on enlisting parental involvement "brought a new perspective." She also wrote about Jeannie Oakes' video segment about parents' unease with school relationships that she "never realized teachers had such difficult (*sic*) having relationships with student parents."

She agreed strongly that the information associated with this belief was new and made her think about her own views/beliefs on the subject. She also agreed that the information surprised her. However, when asked about these impact statements, she said that it actually did not surprise her: "Because the school I've been teaching at is a lower SES school and apparently the teachers say a lot of the parents don't care and there isn't parental support. Besides them not having their homework sometimes, the students aren't participating any less in class than any others ... I haven't witnessed that."

When Amy was asked about her responses to Belief #12 – With all the pressures to raise student achievement, finding and using examples of the cultural, historic and everyday lived experiences of my students takes valuable time away from teaching and learning what matters most – she said that she did not remember what she had written, but that she hates "all the pressures on the students for testing. I think it would be a lot

more effective and the grades actually would rise if they would pay attention to who the kids are, and where they come from, and make the lessons interesting and apply to them.”

Amy had actually written in her log that it was new to her that “there are teachers that actually teach outside of the test?” This was in response to Kelley Dawson Salas’ piece in the *In Search of Balance* resource associated with Belief #12. She also noted that Dr. Kris Gutierrez’s concept of “robust forms of learning” was new to her. Again, though, neither of these beliefs created anything approximating a disorienting dilemma in Amy. Nor, did either of them make her think about the related issues beyond either the content or process level.

As noted in the discussion of the other discrepant case: while content and process reflection of instrumental learning may lead to improved performance within educators as technicians (e.g. delivering content in a particular way or assuring fidelity of implementation of curriculum in the classroom), it does not equip educators with the insights and motivations necessary to critically reflect on the assumptions underlying content and process. It does not readily facilitate educators’ achievement of autonomous thinking and the self-authoring mind (Mezirow & Associates, 2000; Kegan, 2000), which are goals of transformative learning (if they have not already achieved some level of it).

Variables contributing to the CBS experience. With regard to her personal attributes, Amy indicated on her Learning Activities Survey (King, 1998) that she was reflective in nature. When asked how this trait impacts the way that she processed new information as it relates to teaching, especially teaching diverse students she said:

I guess after I see whatever the new teaching opportunity is ... that night I would think about what went well? Would I use that in my own class? How do I feel about it? And, then the thing with diverse students, I’ve never seen any of that applied in the field. I think ... there’s just too much emphasis on it. I don’t know

if something like this (the CBS) is going to change someone's beliefs, unless they are really racist or whatever. It might just irritate them and make it more so.

Again, Amy's reflections appear to be process or content in nature with relatively no premise reflection. Amy was asked to place the current status of her beliefs about teaching diverse students on an imaginary continuum with the left side not really being sure about the relevance or importance of the issues covered by the CBS content, the middle being a point where the content made her start questioning her beliefs (being "shook up") and the right side being that she completely assimilated the content and is actively changing or changed her beliefs. Was she at all in the situation where she was kind of questioning her beliefs and assumptions? Amy responded, "I think that question kind of assumes that whatever the person's beliefs are, they aren't necessarily where they should be. I don't really like that because you don't know if that person believes that, but I feel strongly in mine and I don't see them going anywhere in regard to teaching diverse students." She reiterated that she feels confident with the beliefs about diversity that she currently holds and that she would probably never use the CBS tools.

In general, Amy seemed to be pretty comfortable with her beliefs and assumptions about teaching diverse students. Amy had checked on her survey that she had had opportunities to verbally discuss her beliefs with others in her teaching program. When asked how that had impacted her beliefs and assumptions about teaching diverse students she responded:

I guess it actually has made me kind of frustrated in my classes. I feel like it's kind of the central focus for everything. We always have to keep bringing it up, 'Oh, like, minority students' and 'all this stuff about race' and 'African-Americans' and it make me really angry because I think they keep pointing out that everyone is different and making assumptions and generalizations about these students who, really, they know nothing about. It is not making the people treat them any different. I don't think it's affecting them positively. I think it's

making more separation between people. They keep noting that we're different, even though everyone's different.

This response was probably the closest one to premise reflection. However, much of her reflection was process reflection and, therefore, did not meet the criteria for disorienting dilemma or inclusion as a case in this study and there did not seem to be much brewing in the way of a possible disorienting dilemma.

Finally, Amy seemed to discount the value of the CBS when she was asked about how she thought her experience with the survey would have differed if she had experienced it in the context of a class: "I probably would have put less effort into it. I know I would still get an "A" because our classes are very easy." She also said that she completed the CBS while watching TV in bed.

* * *

Overall, the study's data suggest that the following about users' CBS experiences and the disorienting dilemma:

- Although all of the participants experienced disorienting dilemmas, the descriptions of them varied from participant to participant.
- Validated disorienting dilemmas were often emotional in nature.
- Participants who experienced a validated disorienting dilemma associated it in some way with their exposure to the Common Beliefs Survey. In some cases, it was more directly related than in others.
- Although the content of the CBS contributed to some of the validated disorienting dilemmas, in some cases the dissonance was not around the particular belief but, instead, around larger issues of the truth or veracity of what they were being/or had been taught in their teacher prep programs or the inequitable structures of public education.
- The two most common variables associated with validated disorienting dilemmas were participants' personal attributes, particularly their level of reflectivity, and the content of the CBS.
- The type of reflection in which participants engaged (content, process or premise) mattered in terms of whether or not they experienced a disorienting dilemma or not.

- The CBS contributed to participants' disorienting dilemmas in two ways: 1) promoting reflection on participants' beliefs and assumptions; and/or 2) providing information that challenged existing information or knowledge they had.
- Among the study's participants, facilitation made a bigger contribution to processing disorienting dilemmas than triggering them.
- Experiencing the CBS in an online learning context was seen by participants as an effective context because it afforded lots of opportunity to reflect on each other's comments and postings.

Using the case descriptions from this chapter, the next chapter looks across the differing disorienting dilemmas that were validated and described to identify any other patterns of note, discuss any implications of this study's findings and pose topics for further study on transformative learning.

Chapter Five -- Discussion of Findings

By the year 2020, students of color are expected to make up the majority of students in public schools across the country (Mensah, 2009). The current reality is that teachers are one of the most important school-based variables in determining the quality of education and opportunities to learn that students receive (Hinnant, O'Brien & Ghazarian, 2009). As such, one area of study related to teacher effectiveness that holds promise for addressing the achievement gap between students of color and their more affluent White and Asian peers is that of teacher beliefs, including the nature and persistence of teacher beliefs about race, ethnicity and class (Guerra & Nelson, 2009; Kagan, 1992). According to Pohan & Aguilar (2001), if schools are going to better serve the needs of students who have not traditionally fared well, then “low expectations, negative stereotypes, biases/prejudices and cultural misperceptions that are embodied in teachers’ beliefs need to be identified, challenged and reconstructed” (p.160).

Research also indicates that teachers are frequently unaware of their beliefs about race, ethnicity and how their beliefs impact their classroom behaviors (Brophy & Good, 1974; Kagan, 1992). If teachers’ beliefs about these things profoundly affect classroom practices – especially those that disadvantage certain student populations – then any effort to change practice must help teachers understand and alter their underlying beliefs (Kagan, 1992; Pohan & Aguilar, 2001; Vaughta & Castagnob, 2008). This is not without significant challenge because in-service and pre-service teachers’ beliefs are enormously resistant to change even in the face of solid disconfirming evidence (Kagan, 1992; Pajares, 1992).

Although teachers have significant control over their instructional practices once they close their classroom doors, the degree to which they are able to modify their practices is influenced by the governing policies of the school systems in which they are embedded. These system policies mitigate the impact of their beliefs on those practices (see Figure 1). In her 2010 article, Kennedy raises the question, “To what extent is the quality of teachers’ everyday practice – actual classroom behavior – really a function of schedules, materials, students, institutional incursion into the classroom, and the persistent clutter of reforms that teachers must accommodate?” (p. 597).

It is important to acknowledge the contextual influences on a teacher’s practice, so much so that TDSi has a tool focused on the schools--*Teaching Diverse Students School Survey*. This survey is designed to help schools become more responsive to student diversity. However, teacher beliefs cannot be removed from the equation of students’ opportunities to learn nor can they be excluded from deliberations about closing the achievement gap. With that acknowledgment in mind, this concluding chapter explores the study’s findings that contribute to the knowledge base about transformative learning and the disorienting dilemma and provide possible options for examining problematic teacher beliefs.

As discussed earlier, the Teaching Diverse Students Initiative (TDSi) was designed to help address and, if necessary, change problematic teacher beliefs. The structure of TDSi has a natural alignment with Mezirow’s framework. This framework and its related process of transformative learning provide for deep questioning of one’s beliefs and attitudes that can change personal and professional behaviors. An approach

like this seems theoretically promising when it comes to the process of examining and, when necessary, changing teacher beliefs.

According to Mezirow (1991) a “disorienting dilemma” is the first phase of transformative learning which leads to perspective transformation. A disorienting dilemma occurs when meaning schemes are inadequate to explain an experience or new piece of information. When this occurs, the response is generally anxiety followed by a need to resolve the dissonance between our beliefs and assumptions and the disquieting entity (Mezirow, 1991).

This dilemma can either be the result of an epochal dilemma, such as death, illness or other major life occurrence or it can be the result of experiences had and knowledge accrued over a period of time (Mezirow, 1991; Cranton, 2006; Kitchenham, 2008; Brock, 2010; Clark, 1991). The Common Beliefs Survey, as part of the Teaching Diverse Students Initiative’s suite of tools, was designed in part to create a response much like a disorienting dilemma in users in order to move them into the process similar to perspective transformation about teaching diverse students.

Study Summary

Given the similarities between TDSi and transformative learning, especially between the role of the CBS and the function of the disorienting dilemma (see Table 4), this study used the CBS to explore the disorienting dilemma. The general purpose of the present study then was to examine the disorienting dilemmas of several cohorts of CBS users to understand better what the phenomenon is like and what variables might contribute to its occurrence.

The research was conducted among three cohorts of education students enrolled at three different post-secondary institutions. Two of the cohorts were comprised of graduate students and the other of undergraduate students. The study also involved two teacher educators who were linked to the two cohorts of graduate students. Both of the teacher educators were registered users on the TDSi website and had incorporated the Common Beliefs Survey into their courses.

To gather data from all of the participants, several surveys were created to capture different slices of data. All questionnaires were issued and completed in fall 2010. All participants were interviewed following the completion of their questionnaires using a semi-structured interview format. The teacher educator data provided the context for each of the two graduate cohorts and provided information about the type and quality of facilitation of the course in which the CBS was embedded. The student data was used as the basis validating any disorienting dilemmas that were reported. Processes for analyzing and categorizing these data were created and the reported dilemmas and a case study format were used to report the findings.

Discussion

The most common profiles of the 12 students who participated in this study was that of a White female either in her early 20s (undergraduate cohort) or late 20s/early 30s (graduate cohort) who was in her final year of her degree program. All but one of the study's 12 student participants indicated on their Learning Activities Survey (1998) that they had experienced a disorienting dilemma. However, after analyzing the transcripts of their follow-up interviews and aligning their comments with concepts of Transformation Theory, only eight participants' disorienting dilemmas could be validated and be

considered cases for this study. Upon further analysis, one of those eight participants was dropped as a case.

The study's findings indicate that the disorienting dilemma concept may be more complex than Mezirow had originally thought (Clevinger, 1993 as cited in Herbers & Nelson, 2009; Donnelly, 2001 as cited in Herbers & Nelson, 2009) given that 11 participants indicated they had experienced one, but only seven could be validated. The over-reporting of disorienting dilemmas on the primary data collection instrument – the Learning Activities Survey (King, 1998)– could be a result of this complexity and the instrument's inability to capture that.

The data also show that the Common Beliefs Survey is effective in helping to jumpstart a process of critical self-reflection about beliefs and assumptions among participants who are open to the process. It did not seem to matter in this study if the participant encountered the CBS in a facilitated or an unfacilitated context; the CBS had impact in both contexts. The key variable appears to be the dispositions and attributes of the participant and the CBS content. These variables will be discussed later in this chapter.

What was the Nature of the Participants' Disorienting Dilemmas?

The participants' disorienting dilemmas were unique in terms of the degree to which the participant was disturbed, the variables that contributed to the disturbance, the issue(s) about which they were disturbed, and their response to the disturbance.

Participants' disorienting dilemmas tended to have an emotional quality to them. There appeared to be a range of emotional intensity associated with them. For

instance, Cheri said that she was angry when she realized that special education was about Civil Rights and that minority students were overrepresented, which had not been her understanding about special education previously. She said she was too angry to even complete a class assignment and had to request some extra time to cool down and process the realization. Teresa had reported that she was “appalled” and “embarrassed” by her perspectives about minorities when she encountered the CBS and engaged in some of Dr. Price’s curriculum.

Other participants with validated disorienting dilemmas, reported that while they were unsettled by the information they received through the CBS (which contributed to their selection as a case), they also expressed a sense of optimism about processing the information in a productive way. For instance, Mary said that when she was faced with the disconfirming information about some of her beliefs, she accepted the fact that there were some of her beliefs that needed to be addressed and she felt “because of my personality, I was willing to work on some of those things.” Helen said that while the realizations about the shortcomings of her beliefs and practices were unsettling, she said, “I guess even though I was worried about it, I kind of reassured myself that there is still time to change this ... and use what I have learned from all of the resources.”

Particular beliefs were associated with some disorienting dilemmas. In some cases, the disorienting dilemmas were around the particular beliefs in the CBS, such as the experiences of Mary, Melissa and Teresa. Teresa, for example, was moved by Common Belief #4 about responding to cultural dispositions. Exposure to this belief really moved her because it made her look at her beliefs around students of other cultures and how those beliefs might have impacted her previous interaction with them.

Broader issues raised through exposure to the CBS were associated with some disorienting dilemmas. In other cases, dilemmas were around broader issues such as what they had been taught in their teacher prep programs or the issues of justice and equity in the public school system. This was the case for Cheri, Kate and Molly. Molly, for instance, said that a number of Common Beliefs and accompanying resources validated her beliefs, which often ran contrary to what she had been taught by her professors and mentor teacher.

This validation through the CBS seems to have contributed to her growing wariness about the unquestionable authority of her various instructors. She stated that her biggest take away from the CBS was to be more skeptical about information that she has received in the past and will continue to receive about teaching. While this disorienting dilemma was about receiving information from authority figures, it ultimately maps back to her beliefs about teaching diverse students because the information she is questioning is about teaching diverse students.

What Variables May Have Contributed to Participants' Disorienting Dilemmas?

Throughout the study, the three primary variables being studied with regard to participants' experiences were participants' personal attributes; facilitation and learning environment; and the CBS content. Overwhelmingly, the data indicate that participants' personal attributes and the CBS content were most frequently associated with their disorienting dilemmas.

Personal Attributes

While personal attributes cannot be distilled down into one dimension, one specific dimension in this study that was associated with participants' disorienting dilemmas was that of participant's level of personal reflectivity.

Participant reflectivity. All the participants who experienced validated disorienting dilemmas indicated that they were reflective in nature on their Learning Activities Survey (King, 1998). The difference between those who did have a validated disorienting dilemma and those who did not appears to be the amount of premise reflection that was present in their data. As stated in the dilemma categories in Chapter 3, participants who were found to have experienced a disorienting dilemma expressed a larger amount premise reflection. Table 8 lists examples of statements made by participants that indicated premise reflection vs. process and/or content reflection. Therefore, being reflective is not enough to create a disorienting dilemma. It appears that the type of reflection is an important factor.

In contrast to the seven participants who experienced validated disorienting dilemmas, the two discrepant cases described in Chapter 4 expressed very little premise reflection. They both did convey a sense of confidence in their beliefs about teaching diverse students, as well as teaching in general. Neither saw any need to really reflect on fundamental question in either area, despite considering themselves reflective.

The importance of the type of reflection is somewhat corroborated by Taylor (2007) in his updated review of transformative learning literature. He identified the need for developing frameworks and coding schema that would help codify the presence

and/or levels of critical reflection among study participants. He recognized that part of the problem with analyzing the role of critical reflection in creating a disorienting dilemma and facilitating perspective transformation is that practitioners and researchers may be treating the various types of reflection as equally significant, not recognizing the important differences between them. This need and challenge could easily be extended to help codify the presence and/or levels of disorienting dilemma among study participants.

Willingness to consider new perspectives. The dimensions of reflectivity aside, each of the participants who experienced a validated disorienting dilemma expressed a willingness to consider new and different perspectives about the issues covered in the CBS even though it could mean a potentially challenging change process. To wit, Teresa said that once she had an experience in her course that made her understand the vulnerability associated with being hated for your race, she was appalled and embarrassed by her existing perspectives about race. However, she also expressed a willingness to engage in deep reflection about her beliefs and consider other perspectives and viewpoints about the issues.

Another participant who was an example of this mindset associated with experiencing a disorienting dilemma was Cheri. In her interview she said that she had given herself permission to look critically at her beliefs while in school: “I feel like even though I am allowing myself to be looking at my beliefs right now, I am looking at them critically and may be changing some of them.”

Participant demographics. There does not appear to be any one or combination of demographics that is linked to experiencing a validated disorienting dilemma in this study. Table 9 shows the various demographic data for participants who had experienced

disorienting dilemmas and those who had not. What these data show is that the entire sample is fairly homogeneous. So, at least for this study sample, demographics do not appear to be associated with experiencing a disorienting dilemma.

The Impact of the CBS

The data indicate that each participant's validated disorienting dilemma was either triggered or intensified by their exposure to the content in the CBS. The Common Beliefs Survey appears to have contributed to participants' disorienting dilemmas in one of two ways: by creating opportunities to reflect on one's general beliefs and assumptions about teaching diverse students or by providing information that challenged their current beliefs or assumptions about issues related to each of the beliefs.

Opportunity to reflect. Five of the participants (Mary, Melissa, Teresa, Cheri and Kate) credited the CBS with providing them the opportunity to reflect on their beliefs and assumptions about teaching diverse students. There were three participants for whom the CBS appeared to have contributed to disorienting dilemmas because the participants were either already in the midst of a disorienting dilemma triggered by something else inside or outside of the CBS or they were committed to ongoing critical self-reflection. Cheri, Kate and Helen were these three participants.

Cheri was the sole case from Dr. Brown's cohort and Kate and Helen were from the unfacilitated cohort. Interestingly, Cheri and Kate had very similar responses when asked how the CBS impacted their beliefs. They both responded that the CBS did not necessarily change any of their beliefs, but it did give them a chance to reflect deeply on their beliefs and provided a context for doing so.

This process of reflection on their beliefs was already in progress when they encountered the CBS. This was especially true for Cheri who had given herself permission to “flail about” with regard to developing her beliefs about teaching while in graduate school. Nonetheless, their level of premise reflectivity qualified them as having validated disorienting dilemmas. This “in process” disorienting dilemma confirms what the literature says about the possibility of disorienting dilemmas being related to experience and/or knowledge accrued over a period of time (Mezirow, 1991; Kitchenham, 2008; Cranton, 2006; Brock, 2010; Herbers & Nelson, 2009; Baumgartner, 2001; Imel, 1998).

There were four participants who did not experience a disorienting dilemma. Since user attributes were the variables identified as most like to contribute to a disorienting dilemma, it is possible to surmise that these participants were just not inclined towards a disorienting dilemma in this context. Clevinger (1993 as cited in Herbers & Nelson, 2009) found sociocultural distortions to be a precursor of transformative learning. These sociocultural distortions are revealed in other studies as “contextual factors inclusive of historical, geographical, and life histories that predispose the individual to respond to a triggering event in a transformative manner” (Taylor, 2000, p. 301). Given this, it would stand to reason that some of the study participants are predisposed to the “triggering event” that is the disorienting dilemma and some just simply are not. This means that personal attributes are key variables in experiencing a disorienting dilemma. However, this study looks primarily at why people might be predisposed towards a triggering event, and it does not look very closely at people who are not.

CBS content. The dilemma in two of the cases appears to have been triggered by the CBS meaning that thinking about their beliefs and assumption about teaching and student diversity was not on their radar screens before their encounters with the CBS. These cases—Mary and Teresa—reported that their exposure to some of the CBS content “shook them up” and made them start thinking about these beliefs.

Two of the participants (Helen and Molly) credited the information and resources in the CBS with challenging their current beliefs and perspectives and motivating them to change or adjust the problematic beliefs. Just as frequently, however, participants said that their experience with the CBS helped confirm some of their existing beliefs and assumptions. This occurred with Teresa, Kate, Helen and Molly.

There were two participants whose disorienting dilemma would be considered borderline with regard to either having been triggered by the CBS or exposing a dilemma that was already percolating at the time of their exposure. These two cases – Melissa and Molly – were in different cohorts. Melissa was in Dr. Price’s cohort and Molly was in the unfacilitated cohort. At certain points throughout her interview, for instance, Melissa credited Dr. Price and the CBS with making her think about her beliefs. However, she also shared information about her past that indicated that she at least had a nascent disorienting dilemma that may have been brewing when Dr. Price’s course began.

That the CBS triggered some disorienting dilemmas, helps confirm research on disorienting dilemmas that describe them as the product of an epochal event or exposure to disconfirming evidence (Mezirow, 1991; Kitchenham, 2008; Cranton, 2006; Brock, 2010; Herbers & Nelson, 2009; Baumgartner, 2001; Imel, 1998).

Facilitation. Facilitation does appear to play a role in helping participants process their disorienting dilemmas. Facilitation in this case would mean that the user encountered the CBS in the context of a course and had opportunities to share with others their thoughts and responses to the CBS content and experience. This aligns with Mezirow's (1991) concept of critical discourse being a key element in the process of perspective transformation.

There were two participants (Mary and Teresa) who were taking Dr. Price's course that was structured to address students' beliefs about teaching and diversity. Given this intentionality of purpose, facilitation was looked at as a factor in triggering a disorienting dilemma in these two cases. However, Teresa conveyed a perception of Dr. Price's facilitation as that of a guide who only stepped in when he needed to. Both Mary and Teresa stated that they did not expect to get anything out of the course, much less experience a disorienting dilemma and both admitted that they had biases and prejudices that were uncovered through their exposure to the CBS.

The professors in both facilitated cohorts in this study, in addition to including the CBS in their syllabus, also seemed to provide support and create a safe learning environment that enabled their students (and the study's participants) to explore the difficult issues related to student diversity and the challenging content in the CBS. These facilitation traits also align with Mezirow's (1991) goals for adult educators, especially the goal to "assist the learner to define his/her learning needs, both in terms of immediate awareness and in terms of understanding the cultural and psychological assumptions influencing his/her perceptions of needs" (p. 200).

The CBS experience in online courses. The two facilitated cohorts in the study experienced the CBS in an online, asynchronous course. All of the study participants in these cohorts and their professors felt that the online context contributed to the overall CBS experience primarily because they had time to think before they responded in online discussions. Three of the four cases from the facilitated cohorts--Mary, Melissa, Cheri--felt that the discussions were deeper and freer because of the online context.

This perspective echoes what Zieghan (2001) found in her study on transformative learning in an asynchronous online class environment:

First, the asynchronous class discussion allowed students time and mental space to read other student responses and think about how they wanted to reply. This differs from the immediacy of face-to-face classrooms where spoken words and nonverbal cues are all part of the complex and generally fast-moving interactional environment. Second, the written nature of online classroom dialogue rendered thinking and feeling transparent, to other students as well as to the teacher (p. 146).

The cases from the unfacilitated cohort all felt that if they had experienced the CBS in the context of a course, they probably would have gotten even more out of it. But, again, it appears that at least among this study's participants, a validated disorienting dilemma could be experienced without facilitation and outside the context of a course.

Speculations

So, why did some participants experience a validated disorienting dilemma while others did not? The simplest response is because people respond differently to disconfirming information. As Cranton (2006) wrote, "Whether it is a life crisis or hearing a point of view different from one's own, people respond in different ways to potentially disorienting events. This has to do with the content of the event, the

circumstances under which it is encountered, and the place where a person is in life, but I think it also has to do with psychological type preferences” (p. 94).

Cranton’s speculations suggest that personal attributes, particularly in the psychological realm would be the primary determiners of whether or not one experiences a disorienting dilemma. Beyond that, there is not much in the research literature about what “factors contribute to or inhibit this triggering process” (Taylor, 2000, p. 300).

There are, however, three possibilities that might have some explanatory value for this question as applied to this study’s participants:

- 1) A participant who experiences a disorienting dilemma associated with the CBS comes from a dominant culture environment so that when they encounter the information in the CBS they are becoming aware of power dynamics in the classroom for the first time.
- 2) A participant who experiences a disorienting dilemma associated with the CBS has observed power dynamics within a classroom between teachers and students but has not been able to name it and understand its implications until they encounter the CBS.
- 3) A participant who experiences a disorienting dilemma associated with the CBS encounters information that contradicts information that they considered unquestionable.

Possibility 1 loosely describes the experiences of Melissa, Mary and Teresa. Each of them conveyed that through the CBS and Dr. Price’s course, they had disturbing realizations of the power dynamics in the classroom (and in their communities) to which they may have contributed.

Possibility 2 describes the experiences of Cheri, Kate, Helen and Molly. Each of them discussed observations they had had about practices in the classroom that did not seem quite right. The CBS gave them language to name and understand the practices (e.g. grouping and tracking) and understand the negative implications of those practices.

Possibility 3 also appears to be applicable to the experiences described by Cheri, Helen and Molly. Each of them described being unsettled by information in the CBS that contradicted what they had been taught in their teacher prep programs as well as techniques and information they had been taught during their time in the classroom (e.g. identifying students' learning styles and adjusting for that).

Similar speculations were voiced by Clark (1991, as cited in Taylor, 2000) who, through explorations of the impact of context on perspective transformation, found that:

Not only is a disorienting dilemma a trigger to transformative learning but so are 'integrating circumstances.' These are 'indefinite periods in which the person consciously or unconsciously searches for something which is missing in their life; when they find the missing piece, the transformation process is catalyzed'. Generally they do not appear as a sudden, life-threatening event; instead they are more subtle and less profound, providing an opportunity for exploration and clarification of past experiences (p. 299).

Coffman (1989, as cited in Taylor, 2000) speaks somewhat to Possibilities 1 and 3 when she found in her research on perspective transformation that "there should be an emphasis on the continued reassessment of one's disorienting dilemma in relationship to one's cultural norms and values and their unquestioning acceptance" (p. 291).

These possible explanations would need further testing among a much larger group of participants before they could be validated as major contributors to disorienting dilemmas. Based on the current study, however, participants' perspectives about and openness to change appear to be the major contributors to their disorienting dilemmas. Further, the disorienting dilemmas appear to have been intensified by variables associated with the learning environment, such as curriculum and facilitation. These variables do not, however, appear to be prerequisites for a disorienting dilemma given the data from the unfacilitated cohort in this study.

Based on this researcher's observations, the disorienting dilemma seems to be more of a process than just a simple step on a check list. It is a complex and individual process in and of itself and it needs to be worked through in order for perspective transformation to be successful. People can have multiple disorienting dilemmas at the same time around different things and other phases of transformative learning can occur simultaneous to the disorienting dilemma.

Some people may be able to work through disorienting dilemmas quicker than others. It is likely that personal attributes and contextual factors contribute to the time it takes to process a disorienting dilemma. In the case of this study, the level of individuals' abilities to critically self-reflect seems to have contributed to participants' expediency in processing as does the level of support they receive from instructors and colleagues in the process.

There were also observations of participants' experiences that indicated that disorienting dilemmas can fall on a continuum of validity. This observation led to the development of the dilemma categories ("no disorienting dilemma," "pre-disorienting dilemma," "validated disorienting dilemma") for analyzing the participants' experiences.

The fact that participants in similar contexts experienced disorienting dilemmas, yet others in the same context did not gives personal attributes the speculative edge over context in terms of contributing to disorienting dilemmas. However, context may be equally as important as personal attributes when it comes to working through disorienting dilemmas. The literature on transformative learning certainly identifies these two variables in the forms of critical self-reflectivity and critical discourse as being key to the transformation process (Mezirow, 1991; Kitchenham, 2008). This study's sample was

too small to speak conclusively to this, but it is an observation that might be considered for further research in order to better understand the phenomenon of the disorienting dilemma and its relation to the transformative process.

Implications and Recommendations for Further Research

So, what might this study's findings mean for the TDSi and Transformation Theory? How might the CBS designers apply this information to address disinclined users? Or rather, how would the designers use this information to help teacher educators using the CBS who have disinclined students? What implications do these findings have for better understanding the disorienting dilemma?

There are several efforts that might make sense for TDSi designers to undertake in this regard: 1) adapt King's (1998) Learning Activities Survey to be administered by teacher educators and other CBS facilitators after students complete both the CBS and the *Taking a Closer Look* section; 2) provide facilitators with a tool to determine whether or not their students have experienced valid disorienting dilemmas as reported on the LAS; 3) provide them with strategies to help determine if students who do not experience disorienting dilemmas are disinclined towards them because they are resistant to or unchallenged by the information or if it is because their beliefs already align with most of the best practices being advocated by TDSi through the CBS; and 4) provide them with strategies and tools to help their students experiencing disorienting dilemmas constructively work through the experience.

If the CBS was designed to kick off a transformation process, then this study shows that it can be successful with users who are predisposed to respond to "triggering

events.” TDSi designers now must figure out how to reach those who need to engage in the perspective transformation but who are not.

One implication of the study is that the designers of the CBS may need to develop a system of benchmarks or assessments for teacher educators to use to measure their students’ responses to the CBS experiences. One is proposed earlier in this chapter that would determine predispositions toward the disorienting dilemma along with information, training and tools for teacher educators to support their students’ experiences with regard to the disorienting dilemma.

Another implication of this study is that the TDSi may want to develop more tools aligned with the *10 Phases of Transformative Learning*, so that users’ transformative process can be continued past the first phase within the context of the TDSi website. Such an effort would enable users to stay engaged with the TDSi website and the CBS and, perhaps actively move through the other phases of perspective transformation.

This raises another implication of this study – the need for the TDSi to learn more about how the CBS is being used and study whether particular ways of using the tool are more effective than others. The study had three cohorts that each used the CBS in different ways, but the sample was too small to be able to determine relative effectiveness of one against the other.

The largest implication of this study for Transformation Theory is that, at least among study participants, the disorienting dilemma should be understood as an on-going process rather than a fixed experience that happens separate from all other phases of transformative learning. This implication confirms what the literature says about the

transformative learning process being non-linear, non-sequential and non-time bound (Mezirow, 1991; Mezirow & Associates, 2000; Kitchenham, 2008; Cranton, 2006; Baumgartner, 2001).

It appears, too, that other phases of transformative learning can occur while a participant is still processing a disorienting dilemma. Given that the literature describes transformative learning as a discursive, non-linear process, this co-existence should be examined further to better understand the possible interaction effects between transformative learning phases, including the disorienting dilemma.

Other recommended areas of research related to the disorienting dilemma include: examining possible relationships between individual's demographics (e.g. age, race, SES, etc.) and disorienting dilemmas; duration of disorienting dilemmas; relationship of disorienting dilemma intensities to success of transformative learning process; and what variables might prevent disorienting dilemmas. Taylor (2000, 2007) also identifies deficiencies in both and recommends further research about: theoretical comparisons, in-depth component analysis, strategies for fostering transformative learning, and the use of alternative methodological designs.

There are several lines of future research related to the TDSi and the CBS that would be natural corollaries to this study. The first is a much closer look at the relationship between CBS user attributes and experiencing a disorienting dilemma. Taking a much more in-depth look at user attributes as they relate to using TDSi tools might yield some insight as to how to expand the initiative and the CBS to constructively impact more users. For instance, if more is known about which user attributes tend to

enable a disorienting dilemma and which tend to enable resistance, then a pre-Survey questionnaire could be developed to determine which “path” through the CBS would likely cause a disorienting dilemma for the user.

A second study would look at CBS users’ experiences while they are taking the Survey and following up with them at several points after the experience to see how the experience may have impacted their beliefs and instructional practices. This study would look at what it takes to transfer the CBS experience into instructional practice. What kinds of supports are needed? What are the obstacles that generally exist to accomplishing this transfer? How many of the common beliefs need to be problematic and challenging for a participant in order to kick off perspective transformation?

Another line of research that might prove valuable to the SPLC as they maintain and expand the TDSi is that of looking at which beliefs cause the greatest discomfort among users. A study of this sort might provide insight as to what are the most problematic beliefs among teachers and what might be done to address them systematically (e.g. through teacher prep programs, through state licensure processes, through effective professional development programs, etc.).

While the tools and metrics designed specifically for this study –the disorienting dilemma types and the resource log – were not validated, it may be a worthwhile endeavor to further develop and test them for integration into the CBS process. These tools may prove useful to CBS facilitators to help gauge students’ status with regard to perspective transformation.

When studying CBS users' experiences using a Transformation Theory lens, the bottom line becomes about creating a disorienting dilemma and promoting and supporting premise reflection on their beliefs. To this end, CBS designers need to ensure that users do not get stuck in content and/or process reflection. While "content and process reflection may lead to transformation of a specific belief ... it is premise reflection that engages learners in seeing themselves and the world in a different way" (Cranton, 2006, p. 35). In other words, addressing the specific beliefs in the CBS is only a first step. What else can TDSi do to ensure that the CBS is a portal to an experience that fosters authentic and on-going premise reflection in its users?

Limitations

One of the primary limitations of this study was the sample size. The study sample was somewhat of a convenience sample in that participants were determined merely by the completion of the surveys and/or logs related to their cohort. This severely limits the generalizability of the study's findings.

A further limitation of the study was the instruments used to collect and analyze data. While the primary survey, the Learning Activities Survey (King, 1998) was psychometrically validated, it is unclear if it was sensitive enough to pick up subtleties in participants' experiences with the CBS especially around the disorienting dilemma. The study's primary focus was on the disorienting dilemma. However, the Learning Activities Survey (King, 1998) focuses on measuring the entire transformative learning process of which the disorienting dilemma is only one part. This may have contributed to over-reporting on the Survey of disorienting dilemma experiences. The in-depth interviews and validation analysis may have mitigated this somewhat.

The study's participant interview process is another area of limitation. While steps were taken to ensure consistency in questions and interview structure across cohorts, there were still inconsistencies. There were also inconsistencies between interviews within cohorts. These inconsistencies could have skewed the case comparisons along certain dimensions, such as comparisons between.

Conclusion

The formulation of this study began with a challenge – how to study the potential impact of TDSi on in-service and pre-service teachers' beliefs? This relatively new program was harnessing the power of the Internet to make itself available to all people who were interested in building the capacities of current and future teachers to effectively teach students of all races, ethnicities and socio-economic status. But, given the complexity and intransigence of teacher beliefs as noted in the research, could an online presentation of information really impact beliefs? If so, how would it do it and what would that impact look like? How would you measure any impact? And, what aspect of TDSi would lend itself to a meaningful, yet limited-duration study with a fairly small sample size?

It became evident that Transformation Theory and transformative learning could provide a framework for this study after reviewing some of the working papers for TDSi. Specifically, developers' references to similarities between Mezirow's (1991) "Ten Phases of Transformative Learning" and the program's initial concepts pointed toward the synergy between the theory and the goals for the program (see Table 4).

Mezirow's framework proved to be a solid traveling companion during this study's journey from study design to implementation. That is not to say that the theory

and its empirical research base are not without shortcomings, as mentioned in the chain of reasoning. Taylor (2000, 2007) identifies deficiencies in both and recommends further research about: theoretical comparisons; in-depth component analysis; strategies for fostering transformative learning; and the use of alternative methodological designs. So, perhaps the current study makes a small contribution towards filling in at least one of those holes in the form of in-depth component analysis related to disorienting dilemmas.

This study's descriptions of participant's disorienting dilemmas provided confirmation to the assertions that disorienting dilemmas can be related to an epochal event, the accretion of experiences and knowledge or anywhere in between. Participants experienced a range of validated disorienting dilemmas associated with both types of triggers. This study also demonstrated a diversity in the characteristics of those disorienting dilemmas, which speaks to the highly individualistic and in some cases emotional nature of the phenomenon (Clevinger, 1993 as cited in Herbers & Nelson, 2009; Donnelly, 2001 as cited in Herbers & Nelson, 2009; Taylor, 2000; Kitchenham, 2008). Because this study used Transformation Theory as the framework for studying users' experiences with the CBS, all of the transformative learning-related findings occurred in this context, they are not generalizable beyond the study. They might be useful, however, to the developers of TDSi in their continued efforts to identify and address problematic teacher beliefs about race, ethnicity and socio-economic status. It might also be used by other organizations and individuals who wish to develop tools and strategies focused on improving teacher preparation and professional development around teaching diverse students.

APPENDIX A -- TDSi Tools

- 1) **Understanding the Influence of Race** -- Organized around a brief survey, this tool examines several ways that understandings and beliefs about race and ethnicity influence teaching and learning. This tool includes an instrument for assessing one's dispositions related to race. Among the values of this tool is its potential to raise educators' awareness that race plays a role in their thinking that they may not be aware of thus motivating them to use other tools in the TDSi.
- 2) **Common Beliefs Survey** -- This instrument identifies beliefs about teaching commonly held by many educators that, while sensible and understandable in part, may have unintended negative consequences for students of diverse races and ethnicities. It can be used to motivate further learning and as the basis for one or more learning activities embedded in the tool. Explanations for why these beliefs are “mythtakes” are provided along with resources for further learning about the content of the issues addressed.
- 3) **Primer on Culturally Responsive Pedagogy** -- This resource allows teachers, prospective teachers and school leaders to examine their assumptions about effective teaching of students from different races and ethnicities. It can be used by itself or as a supplement to other tools. It deals with several misconceptions about the characteristics of culturally responsive pedagogy and shows that (1) this approach to instruction is based on theory and research, and (2) can enhance the learning of all students.
- 4) **Case-based Learning Modules** -- The TDSi cases can be used in multiple ways and engage the learner in interactive problem solving related to improving instruction of racially and ethnically diverse students. The cases deal with different focal teachers and classroom and school characteristics. Because instructional effectiveness is related to content, these cases deal with teaching literacy. While literacy-focused, the lessons embodied in the cases are relevant to other subject areas. Learners using the cases analyze authentic challenges, engage in discussion about dilemmas raised, study learning resources provided, and develop solutions to the problems involved that they then are asked to apply to experiences they have had or will have in teaching.
- 5) **Teaching Diverse Students School Survey** -- Teaching and student learning can be significantly impeded or facilitated by school-level policies, processes, practices and cultures. This tool helps educators, most likely those who are--or who are preparing to be--school administrators and teacher leaders, examine whether conditions in their school support effective teaching and learning for racially and ethnically diverse students. Resources are provided to facilitate actions to improve conditions found to be less than optimal. (retrieved from http://www.tolerance.org/tdsi/about_tdsi on July 7, 2010) –

APPENDIX B – TDSi Relevant Research

- Bobo, L. (2001). Racial Attitudes and Relations at the Close of the Twentieth Century. In N. Smelser, W. J. Wilson, F. Mitchell, & National Research Council (Eds.), *America Becoming: Racial Trends and Their Consequences* (Vol. 1, pp. 264-301). Washington, D.C.: National Academy Press.
- Brawarsky, S. (1996). *Improving intergroup relations among youth*. New York: Carnegie Corporation of New York.
- Carter, P. (2008). Teaching Students Fluency in Multiple Cultural Codes. In M. Pollock (Ed.), *Everyday Antiracism: Getting Real About Race in School* (pp. 107-111). New York: The New Press.
- Cohen, E. G. (2004). Producing equal-status interaction amidst classroom diversity. In W. Stephan & P. Vogt (Eds.), *Education programs for improving intergroup relations, theory, research, and practice* (pp. 37-54). New York: Teachers College Press.
- Diamond, J. (2008). Focusing on Student Learning. In M. Pollock (Ed.), *Everyday Antiracism: Getting Real About Race in School* (pp. 254-256). New York: The New Press.
- Gillborn, D. (2008). Developing Antiracist School Policy. In M. Pollock (Ed.), *Everyday Antiracism: Getting Real About Race in School* (pp. 246-251). New York: The New Press.
- Gutierrez, R., Bay-Williams, J., & Kanold, T. (2008, October). Beyond Access and Achievement: Equity Issues for Mathematics Teachers and Leaders. *NCTM News Bulletin*.
- Henze, R. (2000). *Leading for Diversity: How School Leaders Achieve Racial and Ethnic Harmony*. Research brief 6, Santa Cruz: Center for Research on Education, Diversity and Excellence.
- Irvine, J., Armento, B., Causey, V., Jones, J., Frasher, R., & Weinburgh, M. (2001). *Culturally Responsive Teaching: Lesson Planning for Elementary and Middle Grades*. Boston: McGraw-Hill.
- Irvine, J. J. (1990). *Black Students and School Failure: Policies, Practices, and Prescriptions*. Westport: Greenwood Publishing Group.
- Ladson-Billings, G. (1995). But That's Just Good Teaching! The Case for Culturally Relevant Pedagogy. *Theory into Practice*, 34(3), 159-65.
- Louie, V. (2004). *Compelled to Excel: Immigration, Education, and Opportunity Among Chinese Americans*. Stanford: Stanford University Press.
- Miller, L. S. (1995). *An American Imperative: Accelerating Minority Educational Advancement*. New Haven: Yale University Press.
- Newmann, F., & Wehlage, G. (1995). *Successful school restructuring: A report to the public and educators*. Madison: Center on Organization and Restructuring

Schools, Wisconsin Center for Education Research. Washington, DC: U.S. Department of Education

- Noguera, P. (2008). What Discipline Is For: Connecting Students to the Benefits of Learning. In M. Pollock (Ed.), *Everyday Antiracism: Getting Real About Race in School* (pp. 132-137). New York: The New Press.
- Rubin, B. (2008). Grouping in Detracked Classrooms. In M. Pollock (Ed.), *Everyday Antiracism: Getting Real About Race in School* (pp. 90-95). New York: The New Press.
- Singleton, G., & Linton, C. (2006). *Courageous Conversations about Race: A Field Guide for Achieving Equity in Schools*. Thousand Oaks, CA: Corwin Press.
- Slavin, R. (1994). *Cooperative learning: Theory, research, and practice* (2nd ed.). Boston: Allyn & Bacon.
- Stephan, W., & Stephan, C. (2004). Intergroup Relations in Multicultural Education Programs. In J. Banks & C. Banks (Eds.), *Handbook of Research on Multicultural Education* (2nd ed., pp. 782, 791-794). San Francisco: Jossey-Boss.
- Valenzuela, A. (2008). Uncovering Internalized Oppression. In M. Pollock (Ed.), *Everyday Antiracism: Getting Real About Race in School* (pp. 50-55). New York: The New Press.
- Villegas, A. M. (1991). *Culturally Responsive Pedagogy for the 1990s and Beyond. Trends and Issues*. Washington, D.C.: American Association of Colleges for Teacher Education.
- Villegas, A. M., & Lucas, T. (2002). *Educating Culturally Responsive Teachers: A Coherent Approach*. Albany: Suny Press.

(Retrieved from <http://www.tolerance.org/tdsi/references> on July 17, 2010)

APPENDIX C -- Attributes of Communication and Relationships Between Teachers and Students for Whom They Have Low Expectations

1. Wait less time for lows to answer.
2. Give lows the answer or call on someone else rather than trying to improve their response through repeating the question, providing clues, or asking a new question.
3. Inappropriate reinforcement: rewarding inappropriate behavior or incorrect answers by lows.
4. Criticizing lows more often for failure.
5. Praising lows less frequently than highs for success.
6. Failure to give feedback to the public responses of lows.
7. Generally paying less attention to lows or interacting with them less frequently.
8. Calling on lows less often to respond to questions .
9. Seating lows farther away from the teacher .
10. Demanding less from lows.
11. Teachers interact with low expectation students more privately than publicly, and monitor and structure their activities more closely.
12. Differential administration or grading of tests or assignments, in which high expectation but not low expectation students are given the benefit of the doubt in borderline cases.
13. Less friendly interaction with low expectation students, including less smiling and other nonverbal indicators of support.
14. Briefer and less informative feedback to the questions of low expectation students.
15. Not only less smiling and nonverbal warmth, but less eye contact and nonverbal communication of attention and responsiveness (forward lean, positive head nodding) in interaction with lows.
16. Less intrusive instruction of highs/more opportunity for them to practice independently.
17. Less use of effective but time consuming instructional methods with lows when time is limited.

(Brophy, 1983, p.641).

APPENDIX D – *Goals of Adult Educators*

1. Progressively decrease the learner's dependency on the educator.
2. Help the learner understand how to use learning resources, especially the experience of others, including the educator, and how to engage in reciprocal learning relationships.
3. Assist the learner to define his/her learning needs, both in terms of immediate awareness and in terms of understanding the cultural and psychological assumptions influencing his/her perceptions of needs.
4. Assist the learner to assume increasing responsibility for defining learning objectives, planning his/her own learning program, and evaluating progress.
5. Help the learner organize what is to be learned in relationship to his/her current personal problems, concerns and level of understanding.
6. Foster learner decision making, select relevant learning experiences that require choosing, expand the learner's range of options, and facilitate the learner's taking the perspectives of others who have alternative ways of understanding.
7. Encourage the use of criteria for judging that are increasingly inclusive and differentiating in awareness, self-reflexive, and integrative of experience.
8. Foster a self-corrective, reflexive approach to learning – to typifying and labeling, to perspective taking and choosing, and to habits of learning and learning relationships.
9. Facilitate posing and solving of problems, including problems associated with the implementation of individual and collective action, and recognition of the relationship between personal problems and public issues.
10. Reinforce the self-concept of the learner as a learner and doer by providing for progressive mastery and for a supportive judgment of performance; and by appropriate use of mutual support groups.
11. Emphasize experiential, participative, and projective instructional methods and use modeling and learning contracts where appropriate.
12. Make the moral distinction between helping the learner understand his/her full range of choices and ways to improve the quality of choosing and encouraging the learner to make a specific choice. (Mezirow, 1991, p. 200)

APPENDIX E – TDSi Learning Resources

TDSi's learning resources provide knowledge and counsel that are embedded in the tools described above. These resources include:

1. Video. This includes video of interviews with expert researchers and teachers, TDSi-produced video of expert teaching, and selected video from partnering sources.
2. TDSi-developed text. Each of the various tools (e.g., cases and surveys) the TDSi staff includes brief research-based lessons that foster learning and, when appropriate, link the learner to other resources.
3. Articles and reports. These resources are based on research or are issued from authoritative sources that, in turn, rely on theory and research.
4. Excerpts from articles and book chapters. The TDSi has secured permission from publishers to reproduce selected resources.
5. Learning activities. These include exercises, discussion frameworks, rubrics for evaluating teaching, and the like.
6. References for further study. This resource will help learners pursue more in-depth study of particular topics by steering them toward seminal research and analysis. (Retrieved from <http://www.tolerance.org/tdsi/references> on March 28, 2011)

APPENDIX F – *Common Beliefs Survey Facilitators’ Guide Excerpts***TABLE OF CONTENTS**

1	What is the Common Beliefs Tool?
1	Sources and character of the selected beliefs
2	Step 1: Complete the Common Belief Survey
2	Pick and choose items to address
2	Track the common beliefs experience
3	Reflect on survey responses
4	Step 2: Taking a closer look at each belief
5	Common Belief 1
8	Common Belief 2
11	Common Belief 3
14	Common Belief 4
16	Common Belief 5
19	Common Belief 6
21	Common Belief 7
23	Common Belief 8
25	Common Belief 9
27	Common Belief 10
30	Common Belief 11
31	Common Belief 12
33	Common Belief 13

What is the Common Beliefs Tool?

The Common Beliefs Tool surveys beliefs about instruction commonly held by many educators that, while sensible and understandable in part, may have unintended negative consequences for students of diverse races and ethnicities. It can be used to motivate further learning by interrupting participants' assumptions about what they believe and, as the basis for exploring the related issues in classes or online.

The Common Beliefs Tool has two parts.

- Part I is the survey. It identifies several beliefs about teaching diverse students that are often expressed by teachers. Participants are asked to express their relative agreement or disagreement with each belief.
- Part II contains brief explanations of each survey item — why particular beliefs may undermine effective teaching of diverse students. Participants read the explanation, which is followed by an invitation to reflect on the discussion and to make comments. These comments, if they are to be written, are to be entered in the Participant Guide or in another mode that you suggest. The discussion of each of the beliefs is followed by several learning resources — which we also call assets — upon which further understanding can be developed. The assets/learning resources may include video of expert commentary, text of examples of effective practice, written articles or summaries of articles, further learning exercises, or Web-based information. Each resource is introduced by a very short annotation. Discussion questions are provided to scaffold the participants' thinking about the assets and the beliefs.

Sources and character of the selected beliefs

The beliefs listed in the survey were selected after interviews with teachers, discussions with our advisers, and reading the relevant research on the convictions and understandings that influence the behavior of many teachers and school administrators.

Some of the beliefs represent dilemmas about which teachers must make a judgment. For example, many teachers think they should be color blind, by which they mean, presumably, that they treat all students the same regardless of their race. But when students bring to school unique personal experiences and have expertise that is associated with their race or ethnic heritages, teachers will want to use these experiences and expertise to enrich the learning opportunities of all students.

Moreover, the failure to recognize a student's race or ethnicity may be seen by the student as disrespectful of their identity, while other students of the same race or ethnicity will not want such recognition. As a profession, we are better at telling teachers about challenges they confront than we are at giving them guidance to address those challenges.

However, knowing that commonly held beliefs are problematic is an essential first step toward designing responsive teaching practices for racially and ethnically diverse students.

Some of the beliefs are based on misinformation or misunderstanding. All have some basis in common experience or in widely held ideas about the influences on learning but can, and often do, lead educators to adopt practices that are ineffective for many students. For example, one often hears talk among educators and, indeed, among non-educators, about the importance of students' learning styles. But, as the discussion of this belief in Part II of the survey points out, the evidence about the usefulness of the learning styles belief is slim, and the application of the ideas involved may actually disadvantage racially and ethnically diverse students.

Step 1: Complete the Common Belief Survey

There are at two ways that you could use the Common Beliefs Survey Tool in your TDSi course or workshop:

- By completing the entire survey and then addressing each item.
- By completing the survey and then picking and choosing which items you want students to address

Note: Whatever approach is used, the survey is not a quiz. It is not meant to be scored for purposes of evaluation. Its primary value is to generate reflection and discussion and to develop a greater understanding of complex issues involved in the effective teaching of racially and ethnically diverse students.

Pick and choose items to address

After you have inspected your students' survey data, you might select a limited number of items for in-depth study. This approach integrates steps 1 and 2. For example, the first six items in the survey represent, in the judgment of the TDSi development team, somewhat broader issues than the remaining items. You may find it productive to have your students:

- Focus on specific beliefs from the survey
- Read the commentary and examine the resources related to those beliefs
- Discuss each topic (in class or online)

Track the common beliefs experience

Demonstrate to your participants how you want them to track your thinking while
Facilitator's Guide • Common Belief Tool 3

completing the survey and while they navigate the learning assets in Step 2 of the Common Teacher Beliefs Tool.

It is best to show them several ways to do this and to leave the choice to them.

Your options include:

- Using a journal, where they either open a document file on their computer or use a notebook to record key ideas, revelations, questions and reactions.
- Creating a multi-column chart to track their responses and explanations to the survey.
- Creating a multi-column chart to track the gist or key point of a learning asset (e.g., a video clip), what is new to them in that asset, and why it might be significant.

Reflect on survey responses

Engage participants in a discussion of their responses prior to reading the explanations provided in Step 2. This can be done in small group, whole class or electronic settings.

Note: Some agreement with each of the survey items is reasonable—the beliefs identified in the survey are, literally, common. Obviously, the message TDSi seeks to get across is that these beliefs are problematic and often lead to either (a) ineffective, if not counterproductive, teaching behaviors or (b) behavior that impedes understanding of dysfunctional learning conditions.

Experience with the survey suggests that participants will challenge the explanations raised by the TDSi and the resources provided, especially if they feel that others share their views. The goal here is to have participants seriously examine their beliefs. Even if they disagree with the survey items, they are likely to encounter these beliefs among others in the schools in which they will be teaching. Open discussion of the bases for the survey items and the implications of the beliefs for teaching can contribute to shaping a readiness to learn more about how best to meet the needs of racially and ethnically diverse students.

After participants discuss their responses to the survey as a group, they can be asked to read the explanations in Step 2 and react to them. Underneath each explanation, we ask, “Your thoughts?” as an invitation for participants to share their thoughts. Following a discussion, you can then access learning resources, which include video, links to Web sites, and PDF files, and which offer further insight about and elaboration of the explanation. For some items, the learning resources are extensive. Therefore, for each item, we have selected a few learning resources that we believe should be prioritized and explored first. Those resources appear in a shaded box under each explanation, with the heading, “Explore these resources first.” You then may want to take the level of effort students will be expending into account either by selecting a limited number of additional resources for further study and/or prioritizing the remaining learning resources for your students. You may, of course, create your own priorities for engaging the learning resources. Facilitator’s Guide • Common Belief Tool **4**

APPENDIX G -- Advisors to SPLC's Teaching Diverse Students Initiative

Willis Hawley TDSi Director, Professor of Education and Public Policy, University of Maryland

Jacqueline Jordan Irvine TDSi Advisory Group Co-Chair Charles Howard Candler Professor of Urban Education Emeritus, Emory University

Sonia Nieto TDSi Advisory Group Co-Chair Professor Emeritus of Language, Literacy, & Culture, University of Massachusetts, Amherst

Alicia Ardila-Rey Director of Research and Dissemination at the American Association of Colleges of Teacher Education

Alfredo Artiles Professor of Special Education and English Language Learning, Arizona State University.

Nilanjana Dasgupta, Associate Professor of Psychology, University of Massachusetts, Amherst

Patricia Edwards Professor of Teacher Education, Michigan State University

Gloria Ladson-Billings Kellner Family Professor of Urban Education, University of Wisconsin

Luis Moll Professor of Language, Reading, & Culture, University of Arizona

Jeannie Oakes The Ford Foundation and Professor & Director Urban Schooling Emeritus, University of California, Los Angeles

John O'Flahavan TDSi Development Team Leader, Associate Professor, University of Maryland

Victoria Purcell-Gates Canada Research Chair in Early Childhood Literacy, University of British Columbia

Sheila Simmons Director, Human Relations Division, National Education Association

Dorothy Strickland Samuel DeWitt Proctor Professor of Education, Rutgers University

Development Team

Denise Alston - Senior Policy Analyst, National Education Assoc.

Kristen A. Delikat - National Board Certified Teacher, Reading Specialist, Montgomery County Public Schools

Michelle Garcia - Special Projects Manager, Southern Poverty Law Center

Melissa Landa - Visiting Assistant Professor, University of Maryland

Talitha Simeona-Moon - National Board Certified Teacher, Prince George's County Public Schools

Jennifer Turner - Associate Professor, University of Maryland

Elizabeth Varela - English Language Learning Specialist/Professional Development Coordinator, Arlington County Public Schools

APPENDIX H – *Common Beliefs*

1. I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching.
2. The gap in the achievement among students of different races is about poverty, not race.
3. Teachers should adapt their instructional practice to the distinctive cultures of African American, Latino, Asian and Native American students.
4. In some cultures, students are embarrassed to speak in front of others, so I take this into account and don't call on these students in class.
5. When students come from homes where educational achievement is not a high priority, they often don't do their homework and their parents don't come to school events. This lack of parental support undermines my efforts to teach these students.
6. It is not fair to ask students who are struggling with English to take on challenging academic assignments.
7. I believe that I should reward students who try hard, even if they are not doing well in school, because building their self-esteem is important.
8. I try to keep in mind the limits of my students' abilities and give them assignments that I know they can do so that they do not become discouraged.
9. Students of different races and ethnicities often have different learning styles, and good teachers will match their instruction to these learning styles.
10. Grouping students of different levels of achievement for instruction may benefit some students, but it can undermine the progress that could otherwise be made by higher-achieving students.
11. Before students are asked to engage in complex learning tasks, they need to have a solid grasp of basic skills.
12. With all the pressures to raise student achievement, finding and using examples of the cultural, historic and everyday lived experiences of my students takes valuable time away from teaching and learning what matters most.
13. Talking about race with my colleagues could open up a can of worms; little good is likely to come from it. (Retrieved from <http://www.tolerance.org/tdsi/references> on March 28, 2011.)

APPENDIX I – The Common Beliefs Survey
The Common Beliefs Survey

1

I don't think of my students in terms of their race or ethnicity. I am color blind when it comes to my teaching.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*



2

The gap in the achievement among students of different races is about poverty, not race.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*



3

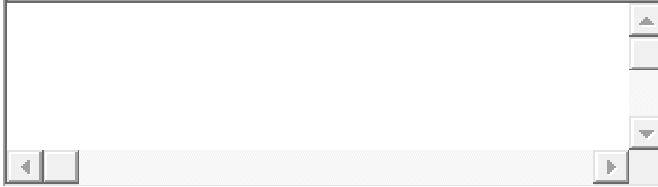
Teachers should adapt their instructional practice to the distinctive cultures of African American, Latino, Asian and Native American students.

Choose one: *(*required)*

- Agree strongly

- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*



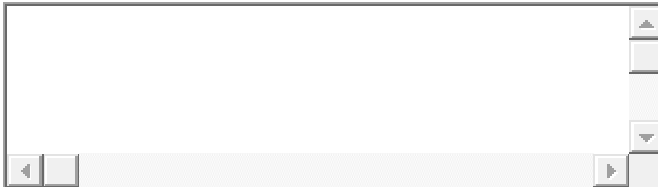
4

In some cultures, students are embarrassed to speak in front of others, so I take this into account and don't call on these students in class.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*



5

When students come from homes where educational achievement is not a high priority, they often don't do their homework and their parents don't come to school events. This lack of parental support undermines my efforts to teach these students.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*

6

It is not fair to ask students who are struggling with English to take on challenging academic assignments.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*

7

I believe that I should reward students who try hard, even if they are not doing well in school, because building their self-esteem is important.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*

8

I try to keep in mind the limits of my students' ability and give them assignments that I know they can do so that they do not become discouraged.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*




9

Students of different races and ethnicities often have different learning styles, and good teachers will match their instruction to these learning styles.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*



10

Grouping students of different levels of achievement for instruction may benefit some students, but it can undermine the progress that could otherwise be made by higher achieving students.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*

11

Before students are asked to engage in complex learning tasks, they need to have a solid grasp of basic skills.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*

12

With all the pressures to raise student achievement, finding and using examples of the cultural, historic and everyday lived experiences of my students takes valuable time away from teaching and learning what matters most.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*

13

Talking about race with my colleagues could open up a can of worms; little good is likely to come from it.

Choose one: *(*required)*

- Agree strongly
- Agree
- Neither agree nor disagree
- Disagree
- Disagree strongly

Why I feel this way: *(*required)*



(Retrieved from <http://www.tolerance.org/tdsi/question/common-beliefs-survey> on May 8, 2011)

APPENDIX J – “Take A Closer Look” Excerpt Color Blindness

I don't think of my students in terms of their race or ethnicity; I am color blind when it comes to my teaching.

Background

When teachers say they are color blind, they are usually saying that they do not discriminate and that they treat all their students equally. Of course, being fair and treating each student with respect are essential to effective teaching. However, race and ethnicity often play important roles in children's identities and contribute to their culture, their behavior, and their beliefs. When race and ethnicity are ignored, teachers miss opportunities to help students connect with what is being taught. Recognizing that a student's race and ethnicity influences their learning allows teachers to be responsive to individual differences. In some cases, ignoring a student's race and ethnicity may undermine a teacher's ability to understand student behavior and student confidence in doing well in a school culture where expectations and communication are unfamiliar. An individual's race and ethnicity are central to her or his sense of self but they are not the whole of personal identity. Moreover, how important an individual's race and ethnicity is to her or his identity will vary and teachers need to take that into account as they seek to learn more about their students.

Questions To Consider

1. What are some ways for educators to acknowledge students' ethnic, cultural, racial, and linguistic identities?
2. Why is it important to incorporate their identities into the curriculum?
3. What happens when teachers don't validate their students' racial and ethnic identities?

To explore these and other questions, take a closer look at the resources below.

Explore the TDSi Assets

Linda Darling-Hammond explains the importance of discussing race and recognizing its centrality in the identities of students and teachers

VIDEO PLACEHOLDER

Race: Are We So Different? is an interactive web site that explores how human variation differs from race, when and why the idea of race was invented, and how race and racism affects everyday life. This site teaches that:

- Race is a recent human invention
- Race is about culture, not biology
- Race and racism are embedded in institutions and everyday life.

Joyce King explains how White educators can work to understand the role of racial beliefs in the context of American schools.

Racial Identity, Teaching and Learning

Dorothy Strickland emphasizes the importance of recognizing the individual characteristics of each child, rather than only thinking of them according to their racial or cultural identities.

VIDEO PLACEHOLDER

Links to Readings

Dorinda Carter discusses the dilemmas teachers confront in both ignoring and publicly "spotlighting" students' racial identity.

Coming to Know Students as Individuals

Christine Sleeter explains how multiculturalism supports the struggle against racism.

Lisa Delpit encourages teachers to discover who their students are outside the classroom.

Asian American students describe the challenges of living in two cultures

APPENDIX K – Participant Consent Form

Initials _____

Date _____

PARTICIPANT CONSENT FORM

Project Title	Addressing Teacher Beliefs Through Transformative Learning: The Role of Facilitation in the Teaching Diverse Students Initiative Experience
Why is this research being done?	<p><i>Thank you for volunteering for this University of Maryland doctoral research project about the role of facilitation transformative learning in addressing teacher beliefs about race, ethnicity and class through an online teacher preparation program – Training Diverse Students Initiative.</i></p> <p><i>The study will explore the following research question: What variable(s) most contribute to the creation of a “disorienting dilemma” when using the Common Beliefs Survey in a teacher education course?</i></p>
What will I be asked to do?	<p><i>Students selected for the study will go through the Common Beliefs Survey without facilitation and write about their experience in a log. They will then be interviewed about their unfacilitated experience.</i></p> <p><i>The Common Beliefs Survey and the log should take about 2 hours to complete. The follow-up phone interview will be approximately 1 hour long.</i></p> <p><i>All participants will be compensated for their participation in the study (students, \$60 per person) and are encouraged to ask the researcher questions throughout the duration of the study. You may withdraw from the study at any time without penalty.</i></p>
What about confidentiality?	<p><i>I will do my best to keep your personal information confidential. To help protect your confidentiality, any reports or articles about this research project will use pseudonyms for participants and the course. Additionally, all data will be stored on the researcher’s personal computers, in password-protected files on; on password-protected flash drives; in password-protected SurveyMonkey files; and in a password-protected g-mail account.</i></p> <p><i>Your information may be shared with representatives of the University of Maryland, College Park or governmental authorities if you or someone else is in danger or if we are required to do so by law. In accordance with legal requirements and/or professional standards, we will disclose to the appropriate individuals and/or authorities information that comes to our attention concerning child abuse or neglect or potential harm to you or others.</i></p>

<p>What are the risks of this research?</p>	<p><i>While there are no anticipated risks to subjects, it is possible that study participants may be somewhat anxious about responding to some of the interview questions if they relate to their perspectives on race, ethnicity and social class.</i></p> <p><i>As part of the focused interview protocol that will be used, the interviewer will work to assure you that your identity will be kept anonymous and your responses will be used solely for evaluating TDSi. Most, if not all of the interviews will take place by phone, which may provide a sense of anonymity and may help further alleviate some of the stress and anxiety of participation.</i></p> <p><i>Your participation will help make TDSi a stronger and more effective program for future users. You are encouraged to ask the researcher questions throughout the duration of the study and will be informed that they may withdraw at any point without penalty.</i></p>
<p>What are the benefits of this research?</p>	<p><i>This research is designed to contribute to a growing body of knowledge about teacher beliefs about race, ethnicity and class and whether or not Transformative Learning, particularly critical reflection can be effective in identifying and changing problematic teacher beliefs.</i></p>
<p>Do I have to be in this research?</p> <p>May I stop participating at any time?</p>	<p><i>Participation in this research is completely voluntary. You are encouraged to ask the researcher questions throughout the duration of the study and will be informed that they may withdraw at any point without penalty.</i></p>
<p>What if I have questions?</p>	<p><i>You are encouraged to ask the researcher questions throughout the duration of the study and you may withdraw at any point without penalty.</i></p> <p><i>The primary investigator of this research is Dr. John O’Flahavan, College of Education, University of Maryland, College Park, MD 20742. His phone is 301-405-3149.</i></p> <p><i>The student investigator of this research is DeAnna Duncan Grand, Doctoral Candidate in the Department of Curriculum and Instruction, at the University of Maryland, College Park. If you have any questions about the research study itself, please contact DeAnna Duncan Grand at 2324 Knotweed Ct., Waldorf,</i></p>

	<p>MD 20603; (telephone) 301-638-0758 (home); 202-822-780 (office); (e-mail) Duncan5533@hotmail.com.</p> <p>If you have questions about your rights as a research participant or wish to report a research-related injury, please contact: Institutional Review Board Office, University of Maryland, College Park, Maryland, 20742; (e-mail) irb@deans.umd.edu; (telephone) 301-405-0678. This research has been reviewed according to the University of Maryland, College Park IRB procedures for research involving human subjects.</p>	
Statement of Age of Subject and Consent	<p>Your signature indicates that:</p> <ul style="list-style-type: none"> ○ you are at least 18 years of age; ○ the research has been explained to you; ○ your questions have been fully answered; and ○ you freely and voluntarily choose to participate in this research project. 	
	<p>___ I agree to be videotaped and/or audio taped during my participation in this study.</p>	<p>___ I do not agree to be videotaped and/or audio taped during my participation in this study.</p>
Signature and Date	NAME OF PARTICIPANT	
	SIGNATURE OF PARTICIPANT	
	DATE	

APPENDIX L – *Teacher Educators Questionnaire*

Thank you for your interest in this University of Maryland doctoral research project about the Teaching Diverse Students Initiative's Common Beliefs Survey and its possibility for addressing teacher beliefs about race, ethnicity and class. This survey should only take about 20 minutes to complete. You will be contacted shortly after you complete this survey. All responses are confidential and participants are strongly encouraged to ask the researcher questions throughout the duration of the study and participants may withdraw from the study at any point without penalty. Participants selected for the study will be compensated for their time.

1. What is your current position or title? _____
2. Which teacher education program and institution are you associated with? _____

3. Are you a teacher educator? _____ Yes _____ No
4. What is your gender? _____ Male _____ Female
5. Please indicate which race or ethnicity you identify with most.
_____ Non-Hispanic Caucasian _____ African-American _____ Hispanic
_____ American Indian _____ Asian-American _____ Other

This page is designed to capture basic information about the course in which the Teaching Diverse Students Initiatives' Common Beliefs Survey and other tools were used.

1. Did you use the Common Beliefs Survey in one or more of your courses?
_____ Yes _____ No
2. In how many courses have you used the Common Beliefs Survey? _____ 1
_____ 2 _____ 3 _____ 4+
3. What was the name of the course(s) in which the Common Beliefs Survey was used? _____
4. Was the course(s) you taught mandatory for students in the teacher education/prep program? _____ Yes, it was/they were _____ Yes, some of them were _____ No, it wasn't/none of them were
5. How was the course instruction delivered? _____ Face-to-face (e.g. class met together on campus) _____ Online only _____ Blended (mix of online and face-to-face)
6. In which year(s) did you use the Common Beliefs Survey in one or more of your courses? (Select all that apply.) _____ 2007 _____ 2008 _____ 2009
_____ 2010
7. What was your average class enrollment for the course(s) in which you use the Common Beliefs Survey?
_____ 1-5 _____ 6-10 _____ 11-15 _____ 16-20 _____ More than 20
8. On average, what was the student composition of the course(s) in which you used the Common Beliefs Survey? (Select all that apply.) _____ Pre-service undergraduate students only _____ Pre-service graduate students only
_____ Mix of undergraduate and graduate pre-service students _____ Mix of pre-service and in-service students _____ Mix of education and non-education majors

9. How many beliefs from the Common Beliefs Survey tool did you require students to study? All 13 beliefs 10-12 beliefs 7-9 beliefs 4-6 beliefs 1-3 beliefs
10. Did you use any other TDSi tools or resources in your course? If so, which ones?
11. Did you have your students engage in critical reflection activities related to the Common Beliefs Survey? Yes No
12. If you used critical reflection around the Common Beliefs Survey in your course, which of the following activities did students engage in? Journaling Online discussions Face-to-face discussions Blogging Writing a paper Other
1. (Required) Would you be willing to provide to the researcher a copy of the syllabus for each course in which you used the Common Beliefs Survey? Yes No
2. (Required) Would you be willing to refer the researcher to student who were in this course (or courses) who might be interested in participating in this study? (They will be compensated for their time and their identities will be protected and their responses kept confidential.) Yes No
1. Thank you for completing the questionnaire. Please list in the boxes below your name, phone number and e-mail address so that we may contact you about participation in the study.

Name _____

Phone Number _____

E-mail Address _____

APPENDIX M – *Cohorts 1 & 2 Questionnaire*

Pre-Interview -- SURVEY OF COMMON BELIEFS SURVEY EXPERIENCES – Past CBS
Users
(Adapted from King, 2009)

Introduction

Thank you for your interest in this University of Maryland doctoral research project about the Teaching Diverse Students Initiative's Common Beliefs Survey and its possibility for addressing teacher beliefs about race, ethnicity and class. This survey should only take about 20 minutes to complete. You will be contacted shortly after you complete this survey should you be selected for the interview segment of the study. All responses are confidential and you are strongly encouraged to ask the researcher questions throughout the duration of the study and you may withdraw from the study at any point without penalty. Participants selected for the study will be compensated for their time.

- 1) Thinking about your experience with the Common Beliefs Survey and Professor _____'s course, circle any statements that may apply.
 - a. I had an experience that caused me to question the way I normally act.
 - b. I had an experience in the course that caused me to question my ideas about social roles in schools. (Examples of social roles include what a teacher should do or how a student should act.)
 - c. As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.
 - d. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.
 - e. I realized that other people also questioned their beliefs.
 - f. I thought about acting in a different way from my usual beliefs and roles.
 - g. I felt uncomfortable with traditional social expectations within schools and classrooms.
 - h. I tried out new roles so that I would become more comfortable or confident in them.
 - i. I tried to figure out a way to adopt these new ways of acting.
 - j. I gathered the information I needed to adopt these new ways of acting.
 - k. I began to think about the reactions and feedback from my new behavior.
 - l. I took action and adopted these new ways of acting.
 - m. I do not identify with any of the statements above.
- 2) Since taking this course, do you believe you have experienced a time when you realized that your values, beliefs, opinions or expectations had changed?

_____ Yes. If "Yes," please go to question #3 and continue the survey.

_____ No. If "No," please go to question #6 to continue the survey.
- 3) Briefly describe what happened.

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

Was it a person who influence the change? Yes _____ No _____

If "Yes," was it ... (check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> Another student's support | <input type="checkbox"/> A challenge from your professor |
| <input type="checkbox"/> Your classmates' support | <input type="checkbox"/> Your professor's support |
| <input type="checkbox"/> Your advisor's support | <input type="checkbox"/> Other: _____ |

Was it part of the Common Beliefs Survey that influenced the change? Yes _____ No _____

If "Yes," what was it (activities related to the CBS)? (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> The survey content accessed online | <input type="checkbox"/> Personal reflection |
| <input type="checkbox"/> Explanatory power of the CBS | <input type="checkbox"/> Verbally discussing your beliefs with others |
| <input type="checkbox"/> Nontraditional structure of the information | <input type="checkbox"/> Deep, concentrated thought |
| <input type="checkbox"/> Personal journaling | <input type="checkbox"/> Applicability of CBS to internship or field experience |
| <input type="checkbox"/> Class/group projects | <input type="checkbox"/> Term papers/essays |
| <input type="checkbox"/> Class activities/exercises | <input type="checkbox"/> Lab experiences |
| <input type="checkbox"/> Writing about your beliefs | <input type="checkbox"/> Examples in the CBS |
| <input type="checkbox"/> Self-evaluation of your beliefs in this course | <input type="checkbox"/> The activities and resources of CBS |
| <input type="checkbox"/> Other: _____ | |

Was it a significant change in your life that occurred during or after the course that influenced the change? Yes _____ No _____

If "Yes," what was it? (check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> Marriage | <input type="checkbox"/> Change of job |
| <input type="checkbox"/> Birth/adoption of a child | <input type="checkbox"/> Loss of job |
| <input type="checkbox"/> Moving | <input type="checkbox"/> Divorce/Separation |
| <input type="checkbox"/> Death of a loved one | <input type="checkbox"/> Other: _____ |

5) Thinking back to when you first realized that your views or perspective had changed, what did your taking Professor _____'s course and being exposed to the ideas in the Common Beliefs Survey have to do with the experience of change?

6) Would you characterize yourself as one who usually thinks back over previous decisions or past behavior?

- Yes No

Would you say that you frequently reflect upon the meaning of your studies for yourself, personally?

Yes No

ANSWER QUESTION 7 ONLY IF YOU ANSWERED “No” TO QUESTION 2.

7) Which of the following have you experienced in your teacher education program? (Check all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> Another student's support | <input type="checkbox"/> A challenge from your professor |
| <input type="checkbox"/> Your classmates' support | <input type="checkbox"/> Your professor's support |
| <input type="checkbox"/> Your advisor's support | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Personal reflection | <input type="checkbox"/> Verbally discussing your beliefs with others |
| <input type="checkbox"/> Deep, concentrated thought | <input type="checkbox"/> Personal journaling |
| <input type="checkbox"/> Internship or field experience | <input type="checkbox"/> Class/group projects |
| <input type="checkbox"/> Term papers/essays | <input type="checkbox"/> Class activities/exercises |
| <input type="checkbox"/> Lab experiences | <input type="checkbox"/> Writing about your beliefs |
| <input type="checkbox"/> Self-evaluation of your beliefs in this course | <input type="checkbox"/> Other: _____ |

Which of the following occurred while you were enrolled in Professor _____'s class?

- | | |
|--|---|
| <input type="checkbox"/> Marriage | <input type="checkbox"/> Change of job |
| <input type="checkbox"/> Birth/adoption of a child | <input type="checkbox"/> Loss of job |
| <input type="checkbox"/> Moving | <input type="checkbox"/> Divorce/Separation |
| <input type="checkbox"/> Death of a loved one | <input type="checkbox"/> Other: _____ |

All participants should respond to the Preference for Consistency Survey questions.

Please rate the following statements. The possible ratings are

___ Strongly Disagree ___ Disagree ___ Somewhat Disagree ___ Slightly Disagree ___ Neither Agree nor Disagree
 _____ Slightly Agree _____ Somewhat Agree _____ Agree
 ___ Strongly Agree

I prefer to be around people whose reactions I can anticipate.

Even if my attitudes and actions seemed inconsistent with one another to me, it would bother me if

It is important to me that those who know me can predict what I will do.

I want to be described by others as a stable, predictable person.

Admirable people are consistent and predictable.

The appearance of consistency is an important part of the image I present to the world.

It bothers me when someone I depend upon is unpredictable.

I don't like to appear as if I am inconsistent.

I get uncomfortable when I find my behavior contradicts my beliefs.

An important requirement of any friend of mine is personal consistency.

I typically prefer to do things the same way.

I dislike people who are constantly changing their opinions.

I want my close friends to be predictable.

It is important to me that others view me as a stable person.

I make an effort to appear consistent to others.

I'm uncomfortable holding two beliefs that are inconsistent.

It doesn't bother me much if my actions are inconsistent.

ALL ANSWER QUESTIONS 8-17

- 8) In what year were you born? _____
- 9) Marital Status: Single Married Divorced/separated
 Partnered Widowed
(check all which apply)
- 10) What is your gender? Male Female
- 11) Which racial category best describes you?
 Non-Hispanic Caucasian
 African-American
 Hispanic
 American Indian
 Asian-American
 Other
- 12) Current major:
 Education – Elementary Education – Early Childhood
 Education – Math Education—Middle school
 Education – Science Education – High school
 Education – Language Arts Education – Social Studies
 Education – Special Education Other _____
 Education – Paraprofessional
- 13) How many years have you completed of your teacher preparation program?
 When do you expect to finish? _____

- 14) **Prior** education:
 High school diploma/GED Masters degree
 Associates degree Bachelors degree
 Other: _____

15) Have you or are you currently tutoring and/or volunteering with at-risk student(s)? If so, please list experience(s) and duration (e.g. Tutoring a 5th grader in math for two years; volunteer youth leader with high school students for ten years). _____

16) How many courses on teaching diverse students have you had/did you have during your teacher education program? How many courses on teaching diverse students have you had/did you have during your teacher education program? _____

17) How many noncourse-based learning opportunities related to equity and/or student diversity (e.g. workshops, conferences, blogs etc.) have you participated in to date? _____

(Required Responses)

1. In what year did you take the course that included content from the Common Beliefs Survey? _____

2. What was the name of the instructor of the course that included content from the Common Beliefs Survey? _____

3. Would you be interested in participating in the phone interview portion of this study? You will receive additional compensation for your participation in the interview and it will take an additional 45-60 minutes (scheduled at your convenience).

____ Yes _____ No

Thank you for completing the survey. Please list in the boxes below your name, address, phone number and e-mail address so that we may contact you about further participation in the study and send you your honorarium for your participation.

Name _____

Mailing Address _____

Phone Number _____

E-mail Address _____

Reference

- Cialdini, R.G., Trost, M.R., & Newsom, J.T. (1995). Preference for consistency: The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology*, Vol. 69, No. 2, 318-328.
- King, K. P. (2009). *Handbook of the evolving research of transformative learning: Based on the Learning Activities Survey*. Charlotte, NC: Information Age Publishing, Inc.

APPENDIX N – Cohort 3 Initial Questionnaire

Thank you for your interest in this University of Maryland doctoral research project about the Teaching Diverse Students Initiative's Common Beliefs Survey and its possibility for addressing teacher beliefs about race, ethnicity and class. This survey should only take about 10 minutes to complete. You will be contacted shortly after you complete this survey. All responses are confidential and participants are strongly encouraged to ask the researcher questions throughout the duration of the study and participants may withdraw from the study at any point without penalty. Participants selected for the study will be compensated for their time.

1. In what year were you born? _____
2. What is your gender? _____ Male _____ Female
3. Which racial category best describes you?
 _____ Non-Hispanic Caucasian _____ African-American _____ Hispanic
 _____ American Indian _____ Asian-American _____ Other
4. How many years have you completed of your teacher preparation program?
 When do you expect to finish? _____
5. What certifications/endorsements are you pursuing (e.g. special education, math, science, etc.)? _____
6. How many online professional development and/or online learning experiences have you had? _____
7. How would you rate your confidence level with online professional development/learning?
 _____ Very confident; prefer it _____ Very confident, but prefer more traditional formats (e.g. face-to-face instruction; study groups, etc.) _____ Confident
 _____ Becoming more confident _____ Not very confident, but would do it if necessary _____ Not very confident and would not do it
8. Have you or are you currently tutoring and/or volunteering with at-risk student(s)? If so, please list experience(s) and duration (e.g. Tutoring a 5th grader in math for two years; volunteer youth leader with high school students for ten years).
9. How many courses on teaching diverse students have you had/did you have during your teacher education program? _____
10. How many noncourse-based learning opportunities related to equity and/or student diversity (e.g. workshops, conferences, blogs, etc.) have you participated in to date? _____
11. Thank you for completing the survey. Please list in the boxes below your name, phone number and e-mail address so that we may contact you about participation in the study.
 Name _____
 Phone Number _____
 E-mail Address _____

APPENDIX O –Participant’s Resource Review Log

Directions for the
University of Maryland, College Park
Teaching Diverse Students Dissertation Study
Involving
Take A Closer Look

Directions for Resource Review Log (Participation Components 3 & 4) **Participation Component 3: Taking A Closer Look**

1. After completing the Common Beliefs Survey, you will find information discussing each of the beliefs in the *Taking A Closer Look* section on the Teaching Diverse Students Initiative website (www.tolerance.org/tdsi/cb_).
2. You will need the following Resource Review Log for the *Taking A Closer Look* section.
3. Read the “Background” (Hawley, W., O’Flahavan, J., and Landa, M., 2009) and “Questions to Consider” (Hawley, W., O’Flahavan, J., and Landa, M., 2009) sections that correspond with each belief.
4. Then, review **at least three** resources for each belief. They can be any combination of video segments, .pdfs or other formats. **You are not limited to three resources and are encouraged to view or read as many of the Resources that you want, particularly if any of the “Background”, “Questions to Consider,” or initial Resource(s) reviewed confuses, concerns or interests you.**
5. Record your responses and reactions to the “Questions to Consider” in the Resource Review Log.
6. Fill out the date that you started and completed the *Taking A Closer Look* segment, including the review of any additional Resources for that belief. If you started and completed the review for that belief in one sitting, please fill in the start and end times, as well.
7. There is a resource review chart at the end of each section that corresponds to each of the beliefs. Fill out the chart for each Resource you have reviewed in that section. (See Illustration 1 below.) Feel free to add rows to accommodate all of the resources that you have reviewed.
8. Respond to the three multiple-choice questions that are listed after the resource review chart in each section.

- Once you have completed all four segments for each of the common beliefs, please re-name and save the document using the following format: yourname_acloserlookresponses.docx (or .doc if using an earlier version of Windows).

Participation Component 4: Transmitting Your Responses

- E-mail the entire "Resource Review Log" document to me, DeAnna Duncan Grand, at transformativelearning.tdsi@gmail.com. Please include in the body of your e-mail: the User Name you registered on the TDSi site; your full name; and the phone number at which you can be reached.
- After receiving your information, I will contact you directly to arrange a phone interview. This interview (and a brief follow-up e-mail to verify the accuracy of the data I have collected from you known as a "member check") will be the final component of your participation in the study.

Once again, please remember that all of your responses will be kept confidential and you are encouraged to ask me questions via e-mail (transformativelearning.tdsi@gmail.com) throughout the duration of the study. You may withdraw at any point without penalty. After your full participation in the study is complete, you will be provided with an honorarium of \$60 for your time and effort.

Illustration 1

Resource Reviews

Date Review Started _____ Date Review Completed _____

If the review of this section was done in one sitting:

Time Review Started _____ Time Review Completed _____

Resource Reviewed*+	Gist	What is new to you?	Significance?	Why did you choose to review this Resource?
Scheurich	Achievement gap is a result of institutional racism; set of assumptions, behaviors, procedures that everyone participates in but they rarely have inequitable results	The fact that people in an institution can be blind to the racist/inequitable tendencies of the place.	Scary ... how do you tell the difference between a reasonable and an equitable outcome?	It was the shortest video on the page.
"Something is Wrong Here".	Tracking policies that disadvantage minority students have become unchallenged "norms" in schools and they tend to limit minority students' access to more robust and challenging educational opportunities.	That Advanced Placement process tends to reinforce the tracking of minority students and actually tends to limit their academic opportunities.	AP is the academic gold standard yet their process seems to enable institutional racism to continue. Really calls into question their true purpose.	Wanted to learn about a real example of institutionalized racism.

* Use a font no larger than 9 point in the chart.

+ The text boxes will expand as you type and there are no space limits for your responses.

I. Overall Responses

To what degree would you agree with the following statements about your experience with the information and resources related to this Common Belief?

1. I learned new information related to this common belief. **Choose one:**
 - Agree Strongly
 - Agree
 - Neither agree nor disagree
 - Disagree
 - Disagree Strongly

2. The information that I received through the Survey that is related to this common belief made me think about my own views/beliefs about this subject. **Choose one:**
 - Agree Strongly
 - Agree
 - Neither agree nor disagree
 - Disagree
 - Disagree Strongly

3. The information that I received through the Survey that is related to this common belief surprised me. **Choose one:**
 - Agree Strongly
 - Agree
 - Neither agree nor disagree
 - Disagree
 - Disagree Strongly

2. If “Yes,” was it ... (check all that apply)
- | | |
|--|--|
| <input type="checkbox"/> Another student’s support | <input type="checkbox"/> A challenge from your professor |
| <input type="checkbox"/> Your classmates’ support | <input type="checkbox"/> Your professor’s support |
| <input type="checkbox"/> Your advisor’s support | <input type="checkbox"/> Other: _____ |
3. Was it part of the Common Beliefs Survey that influenced the change? Yes ____ No ____
4. If “Yes,” what was it (activities related to the CBS)? (Check all that apply)
- | | |
|---|---|
| <input type="checkbox"/> The survey content accessed online | <input type="checkbox"/> Personal reflection |
| <input type="checkbox"/> Explanatory power of the CBS | <input type="checkbox"/> Verbally discussing your beliefs with others |
| <input type="checkbox"/> Nontraditional structure of the information | <input type="checkbox"/> Deep, concentrated thought |
| <input type="checkbox"/> Personal journaling | <input type="checkbox"/> Applicability of CBS to internship or field experience |
| <input type="checkbox"/> Class/group projects | <input type="checkbox"/> Term papers/essays |
| <input type="checkbox"/> Class activities/exercises | <input type="checkbox"/> Lab experiences |
| <input type="checkbox"/> Writing about your beliefs | <input type="checkbox"/> Examples in the CBS |
| <input type="checkbox"/> Self-evaluation of your beliefs in this course | <input type="checkbox"/> The activities and resources of CBS |
| <input type="checkbox"/> Other: _____ | |
5. Was it a significant change in your life that occurred during or after the course that influenced the change? Yes _____ No _____
6. If “Yes,” what was it? (check all that apply)
- | | |
|--|---|
| <input type="checkbox"/> Marriage | <input type="checkbox"/> Change of job |
| <input type="checkbox"/> Birth/adoption of a child | <input type="checkbox"/> Loss of job |
| <input type="checkbox"/> Moving | <input type="checkbox"/> Divorce/Separation |
| <input type="checkbox"/> Death of a loved one | <input type="checkbox"/> Other: _____ |
1. Thinking back to when you first realized that your views or perspective had changed, what did your taking Professor _____’s course and being exposed to the ideas in the Common Beliefs Survey have to do with the experience of change?

- 1) Would you characterize yourself as one who usually thinks back over previous decisions or past behavior?
 Yes No
2. Would you say that you frequently reflect upon the meaning of your studies for yourself, personally?
 Yes No

ANSWER QUESTION 7 ONLY IF YOU ANSWERED “No” TO QUESTION 2.

- 1) Which of the following have you experienced in your teacher education program? (Check all that apply.)
- | | |
|---|---|
| <input type="checkbox"/> Another student’s support | <input type="checkbox"/> A challenge from your professor |
| <input type="checkbox"/> Your classmates’ support | <input type="checkbox"/> Your professor’s support |
| <input type="checkbox"/> Your advisor’s support | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Personal reflection | <input type="checkbox"/> Verbally discussing your beliefs with others |
| <input type="checkbox"/> Deep, concentrated thought | <input type="checkbox"/> Personal journaling |

It doesn't bother me much if my actions are inconsistent.

All participants should answer all of the following questions.

1) *Prior* education:

High school diploma/GED

Masters degree

Associates degree

Bachelors degree

Other: _____

1. Thank you for completing the survey. Please list your name in the box below.

The survey is an adaptation of the Learning Activities Survey © Copyright, Kathleen P. King, 1998-2009. All rights reserved.

Reference

Cialdini, R.G., Trost, M.R., & Newsom, J.T. (1995). Preference for consistency: The development of a valid measure and the discovery of surprising behavioral implications. *Journal of Personality and Social Psychology*, Vol. 69, No. 2, 318-328.

King, K. P. (2009). *Handbook of the evolving research of transformative learning: Based on the Learning Activities Survey*. Charlotte, NC: Information Age Publishing, Inc.

APPENDIX Q -- *Post-Survey of Learning Activities Research Interview Guide Sample*
 (Adapted from King, 2009)
For: Cheri (Cohort 2)

This interview is part of the doctoral dissertation research project that includes the survey you completed. The research is about addressing teacher beliefs about race, ethnicity and class through an online teacher preparation program – Training Diverse Students Initiative. The interview should take less than an hour to complete. All responses are confidential and you are strongly encouraged to ask the researcher questions throughout the duration of the study and you may withdraw from the study at any point without penalty. Thank you in advance for being part of this project; your cooperation is greatly appreciated.

A segment of the interview questions are designed to gather further information about the topics covered in the original survey, so some of them may sound familiar to you. Please have the Common Beliefs Survey up on a computer monitor in front of you during the interview <http://www.tolerance.org/tdsi/question/common-beliefs-survey>.

I. Participant Information/Contextualization

Are you currently an in-service teacher? If so, what grade level/subjects do you teach?

Did you encounter the Common Beliefs Survey in Dr. Peck's "Community Culture & Collaboration" course?

Post-Survey

1. Thinking back over the course you took with Dr. Brown in which you used the Common Beliefs Survey, did you experience a time when you realized that your values, beliefs or expectations had changed? _____
2. Briefly describe that experience:

3. Do you know what triggered it?

4. Which of the following influenced this change? (Check all that apply.)
 - a. Was it a person who influenced the change? Yes _____ No _____
 - b. If "Yes," was it ... (check all that apply)

<input type="checkbox"/> Another student's support	<input type="checkbox"/> A challenge from your professor
<input type="checkbox"/> Your classmates' support	<input type="checkbox"/> Your professor's support
<input type="checkbox"/> Your advisor's support	<input type="checkbox"/> Other: _____
 - c. Was it part of the class related to the Common Beliefs Survey or other TDSi tools that influence the change? Yes. _____ No _____
 - d. If "Yes," what was it?

- | | |
|---|---|
| <input type="checkbox"/> The survey content accessed online | <input type="checkbox"/> Personal reflection |
| <input type="checkbox"/> Explanatory power of the CBS | <input type="checkbox"/> Verbally discussing your beliefs with others |
| <input type="checkbox"/> Nontraditional structure of the information | <input type="checkbox"/> Deep, concentrated thought |
| <input type="checkbox"/> Personal journaling | <input type="checkbox"/> Class/group projects |
| <input type="checkbox"/> Term papers/essays | <input type="checkbox"/> Applicability of CBS to internship or field experience |
| <input type="checkbox"/> Class activities/exercises | <input type="checkbox"/> Lab experiences |
| <input type="checkbox"/> Writing about your beliefs | <input type="checkbox"/> Examples in the CBS |
| <input type="checkbox"/> Self-evaluation of your beliefs in this course | <input type="checkbox"/> The activities and resources of CBS |
| <input type="checkbox"/> Other: _____ | |

e. Or was it a significant change in your life that influenced the change? Yes _____ No _____

f. If "Yes," what was it?

- | | |
|--|---|
| <input type="checkbox"/> Marriage | <input type="checkbox"/> Change of job |
| <input type="checkbox"/> Birth/adoption of a child | <input type="checkbox"/> Loss of job |
| <input type="checkbox"/> Moving | <input type="checkbox"/> Divorce/Separation |
| <input type="checkbox"/> Death of a loved one | <input type="checkbox"/> Other: _____ |

g. Perhaps it was something else that influenced the change. If so, please describe it:

5) Describe how any of the elements of Dr. Brown's course and/or the Common Beliefs survey influenced the change:

6) What could have been done differently in the course to have helped the change? What specific activities?

7) Thinking back to when you first realized that your views or perspectives had changed:

a. When did you first realize this change had happened? Was it while it was happening, mid-change or once it had entirely happened (retrospective)?

b. What made you aware that this change had happened?

c. Thinking back to when you first realized that your views or perspective had changed, what did your taking Dr. Brown's course and being exposed to the ideas in the Common Beliefs Survey have to do with the experience of change?

d. What did you do about it?

e. How did you feel about the change?

Survey Backup

- Please tell me about these responses:
 - “had a experience that caused to question the way you normally act”
 - Had an experience in the course that caused you to question your ideas about social roles in schools
 - As you questioned your ideas, realized that you no longer agreed with your previous beliefs or role expectations
 - Thought about acting in a different way from your usual beliefs or role expectations
 - Tried to figure out a way to adopt these new ways of acting
- You indicated that you believe you “experienced a time when you realized that your values, beliefs, opinions or expectations had changed.” Tell me about that.
- You indicated that it was a person who had influenced this change (professor and other). Who were they and how did they affect you?
- What did taking this course and the CBS have to do with this change?
- Tell me about the personal reflection you experienced in this course.
- Thinking back to when you first realized that your views or perspective had changed, what did your taking the course and being exposed to CBS have to do with the change?

The Course and its Facilitation

Learning Environment

- How comfortable were you with the online environment of the course? What level of trust did you feel between you and your professor and between you and your online colleagues?
- How do you think the online environment added to or detracted from the discussions around the Common Beliefs Survey? What were the pluses and minuses of this format?
- How open and authentic do you think the discussions were?
- Did you and your colleagues challenge each other’s ideas and beliefs? If so, how might the CBS have influenced these challenges?

Facilitation of Course and CBS

- What kind, if any, critical reflection activities did Dr. Peck have you all do? Were there critical reflection activities related to the CBS?
- How did Dr. Peck engage with you and the other students in the online course?
- What was your experience taking the CBS like? Did you go through the “Taking a Closer Look” section afterwards?

Personal Attributes

Personal Responses to CBS

- Did you find yourself referring to the CBS after you all had completed that specific unit?
- How would you describe the CBS's impact on your beliefs and assumptions about teaching diverse students?
- Did you encounter information through the CBS that conflicted with your beliefs and assumptions about teaching diverse students? If so, how did that make you feel?
- Was there some of the beliefs that impacted you more than others? If so, please tell me about them and your response.
- Did you encounter information through the CBS that confirmed your beliefs and assumptions? If so, how did that make you feel?

Preference for Consistency

- You indicated a high preference for consistency in the survey, so how did this inconsistency between a particular belief or assumption and the information in the CBS affect you? What, if anything, have you done to reconcile the differences?
- You indicated that you frequently reflect upon the meaning of your studies for yourself. How do you think these reflective tendencies affected your experience with the CBS?

Course Assignments

- Tell me about the "professional development plan" that you did for the course. Did the CBS impact that plan you did?
- What about the "personal accountability and action plan" exercise? Did the CBS impact your experience on this?

Final Thoughts

- What have you experienced or read that has most impacted your beliefs about teaching and diverse students?

8) Do you have any questions?

9) Paperwork information

10) Member check.

Thank you for participating in this interview!

Reference

King, K. P. (2009). *Handbook of the evolving research of transformative learning: Based on the Learning Activities Survey*. Charlotte, NC: Information Age Publishing, Inc.

Table 1 --*Ten Phases of Transformative Learning*

1. A disorienting dilemma;
2. Self-examination with feelings of guilt or shame;
3. A critical assessment of socio-cultural or psychic assumptions;
4. Recognition that one's own discontent and the process of transformation are shared and that others have negotiated a similar change;
5. Exploration of options for new roles, relationships and actions;
6. Planning a course of action;
7. Acquisition of knowledge and skills for implementing one's plan;
8. Provisional trying of new roles;
9. Building of competence and self-confidence in new roles and relationships; and
10. Reintegration into one's life on the basis of conditions dictated by one's new perspective (Mezirow, 1991, p. 168-169).

Table 2 -- *Reflective Discourse Conditions*

- More accurate and complete information;
- Freedom from coercion and distorting self-deception;
- Openness to alternative points of view: empathy and concern about how others think and feel;
- The ability to weigh evidence and assess arguments objectively;
- Greater awareness of the context of ideas and, more critically, reflectiveness of assumptions, including their own;
- An equal opportunity to participate in the various roles of discourse; and
- Willingness to seek understanding and agreement and to accept a resulting best judgment as a test of validity until new perspectives, evidence, or arguments are encountered and validated through discourse as yielding a better judgment (Mezirow, 1991, p. 77).

Table 3 --*The Influences on Mezirow's Early Transformative Learning Theory*

Influence	Transformative learning facet
Kuhn's (1962) paradigm	<ul style="list-style-type: none"> • Perspective transformation • Frame of reference • Meaning perspective • Habit of mind
Freire's (1970) conscientization	<ul style="list-style-type: none"> • Disorienting dilemma • Critical self-reflection • Habit of mind
Habermas' (1971, 1984) domains of learning	<ul style="list-style-type: none"> • Learning processes • Perspective transformation • Meaning scheme • Meaning perspective

(Kitchenham, 2008, p. 106)

Table 4 -- Alignment Between Ten Phases of Transformative Learning and Proposed TDSI Steps

	Proposed TDSI Steps (memo from Hawley to SPLC 10/07)
A disorienting dilemma;	<i>Experiencing a disorienting dilemma</i> – the goal is to create dissonance that the learner feels a need to resolve and take the form of an awareness that what one believes or does is not what one values or is in conflict with the values of others whose approval the learner wants.
Phase 2: Self-examination with feelings of guilt or shame;	<i>Self-reflection about feelings of dissonance</i> – The learner examines, individually or with others, the absence of a fit between discovered beliefs and behaviors and those that the learning values are shown to be productive of outcomes the learner believes are expected and/or desired by others. Tools will be developed that help learners contrast their beliefs and behaviors with those that are effective and responsive to student needs.
Phase 3: A critical assessment of socio-cultural or psychic assumptions;	<i>Analysis of possible explanations for current beliefs and behaviors</i> – Learners examine the sources and bases for the beliefs and behaviors that need to be transformed as a precursor to learning new ways to teach students of color more effectively.
Phase 4: Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change;	<i>Exploration of effective practices for teaching and relating productively with student of different races and ethnicities</i> -- In this step, learners develop an understanding of what changes they need to make and learn that others like them have successfully developed such expertise.
Phase 5: Exploration of options for new roles, relationships and actions;	n/a
Phase 6: Planning a course of action;	<i>Planning a course of action</i> – Learners develop a plan for enhancing their knowledge and skills. Tutorials will help them consider different options for enhancing their expertise. This assistance will deal with the range of materials and experiences, the time involved, and potential cost and benefits of different ways to learn (e.g., on their own, with a colleague, with a small group, etc.). Learners will be introduced to the next steps of the Initiative so that they can make plans accordingly. They also consider possible obstacles to leaning and applying new capabilities.
Phase 7: Acquisition of knowledge and skills for implementing one's plan;	<i>Developing knowledge and skills for implementing one's plans</i> – Two steps earlier, learners gain an understanding of what more they will need to know and be able to do. At this step they go more deeply into the resources identified in that step.

Phase 8: Provisional trying of new roles;	<i>Practicing and reflecting on new knowledge and skills (new roles)</i> – Protocols will be developed that teachers can use to assess the improvements they are making in their effectiveness in teaching students of different races and ethnicities. Ideally, they will do this in collaboration with peers.
Phase 9: Building of competence and self-confidence in new roles and relationships; and	<i>Building competence and self-confidence in new roles, behaviors and relationships</i> – Initial success in applying new skills can diminish if learning and support are not continuing. The tutorial for this step will identify ways of building on initial success and creating continuing support.
Phase 10: Reintegration into one's life on the basis of conditions dictated by one's new perspective (Mezirow, 1991, p. 168-169).	n/a

Table 5 -- Data Sources by Research Question

Questions	Learning Activities Survey	Student Interviews	Teacher Educator Interviews	Transformative Learning Theory	Common Beliefs Survey
Q1: What was the nature of Common Belief Survey users' disorienting dilemmas?	X	X		X	X
Q2: What variable may have contributed to their disorienting dilemmas?	X	X	X	X	X

Table 6 -- Mezirow's Transformative Learning Phases Matched with King's Learning Activities Survey Statements

Transformative Learning Phase	LAS Statement
1. Disorienting Dilemma	A. I had an experience that caused me to question the way I normally act. B. I had an experience that caused me to question my ideas about social roles.
2. A self-examination with feelings of guilt or shame	A. As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations B. Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.
3. A critical assessment of epistemic, socio-cultural or psychic assumptions	A. I realized that other people also questioned their beliefs.
4. Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change	A. I thought about acting in a different way from my usual beliefs and roles.
5. Exploration of options for new roles, relationships, and actions	A. I felt uncomfortable with traditional social expectations within schools and classrooms.
6. Planning a course of action	A. I tried out new roles so that I would become more comfortable or confident in them.
7. Acquisition of knowledge and skills for implementing one's plans	A. I tried to figure out a way to adopt these new ways of acting.
8. Provisional trying of new roles	A. I gathered the information I needed to adopt these new ways of acting.
9. Building a competence and self-confidence in new roles and relationships	A. I began to think about the reaction and feedback from my new behavior.
10. A reintegration into one's life on the basis of conditions dictated by one's new perspective	A. I took action and adopted these new ways of acting.

(King, 2009)

Table 7 – Phases of Case Analysis**Step 1**

Learning Activities Survey: Did the student participant select either statement A or B (see Table 6)?

Step 2

Interviews: Did the student participant's description of their experience seem to indicate no dilemma, a pre-dilemma, or a validated disorienting dilemma? A minimum of two statements indicating premise reflection needed to be given by participants during the interview in order to qualify as a validated disorienting dilemma (see Table 8 for samples of qualifying statements).

Step 3

Transformative Learning Theory: Does their description match up to the theoretical description of a disorienting dilemma?

Step 4

Validation Status: Does their reported experience rate as a validated disorienting dilemma in at least two of the three validation points with at least one being theoretical? If "yes," include as a case.

Table 8 – Sample of Interview Statements for Dilemma Categories

Disorienting Dilemma Type	Examples of Interview Statements Indicating Dilemma Category	Participants in this Category/ Cohort
Validated Disorienting Dilemma – expressed at least two thoughts or feelings that are similar to these examples.	<p>“I think it was when I realized that ethnic minorities tend to be over-represented in certain disability groups and in special education, something just kind of clicked for me.”</p> <hr/> <p>After the student encountered the information through the CBS she said that “...we had to write a short response for a part of the class and I ended up e-mailing (the professor) and saying ‘can you please give me a couple of extra days because ... I was really, truly angry.’”</p> <hr/> <p>“I will look at my beliefs more critically and challenge them.”</p>	<ul style="list-style-type: none"> • Mary/ Cohort 1 • Melissa/ Cohort 1 • Teresa/ Cohort 1 • Cheri/ Cohort 2 • Student 2/ Cohort 2 (invalidated) • Kate/ Cohort 3 • Helen/ Cohort 3 • Molly/ Cohort 3
Possible Disorienting Dilemma – expressed these types of statements, but not to or more validated disorienting dilemma statements.	<p>“So, yeah, I hadn’t really thought about how negative that can be for students until watching the video resource.”</p> <hr/> <p>“I guess the information did change my viewpoint regarding that technique because of its impact on the students.”</p>	<ul style="list-style-type: none"> • Student 3/ Cohort 2 • Student 4/ Cohort 2 • Carrie/ Cohort 2
No Disorienting Dilemma – expressed virtually no disorienting dilemma possible statements and no validated disorienting dilemma -type statements.	<p>“Questioning my beliefs through the CBS made me realize that I still agree with my beliefs and that they don’t need to change.”</p> <hr/> <p>“I feel strongly in mine (beliefs) and I don’t see them going anywhere in regards to teaching diverse students.”</p> <hr/> <p>“The checklist in the resources section was really good. I think I’ll use it in my classes.”</p>	<ul style="list-style-type: none"> • Amy/ Cohort 3

Table 9– Demographic Traits by Participants Who Had Validated Disorienting Dilemmas and Those Who Did Not

Demographic Trait	# Participants Who Did	# Participants Who Did Not	Participant Totals
<i>Age</i>			
20 – 25	3	1	4
25 +	4	4	8
<i>Gender</i>			
Male	0	1	1
Female	7	4	11
<i>Marital Status</i>			
Single	4	3	7
Married	2	1	3
Divorced	1	0	1
Partnered	0	1	1
<i>Race</i>			
Non-Hispanic Caucasian	6	4	10
Hispanic	0	1	1
African-American	1	0	1
<i>Grade Level</i>			
Undergraduate	3	1	4
Graduate	4	4	8

Table 10 -- Participant Responses to Learning Activities Survey

Learning Activities Survey Wording														
10 Phases of		Mary -- Price	Teresa - Price	Melissa - Price	Cheri - Brown	Carrie – Brown (Discrepant Case)	Brown 1	Brown 2	Brown 43	Kate – Unfacil.	Helen – Unfacil.	Molly – Unfacil.	Amy – Unfacilitated (Discrepant Case)	
	I had an experience that caused me to question the way I normally act.	X		X		X	X	X				X	X	
Disorienting	I had an experience that caused me to question my ideas about social roles in schools. (Examples of social roles include what a teacher should do or how a student should act.)	X	X			X		X	X	X	X	X	X	
Critical reflection	As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations.	X				X					X			
	Or instead, as I questioned my ideas, I realized I still agreed with my beliefs or role expectations.		X					X	X	X	X	X	X	
Recognized	I realized that other people also questioned their beliefs.	X	X			X	X	X	X		X	X		

Explored new	I thought about acting in a different way from my usual beliefs and roles.	X		X	X	X	X		X	X
Self-examination	I felt uncomfortable with traditional social expectations within schools and classrooms.	X			X	X	X	X	X	
Tried on new	I tried out new roles so that I would become more comfortable or confident in them.	X			X				X	
Planned	I tried to figure out a way to adopt these new ways of acting.	X	X		X	X			X	X
Acquired	I gathered the information I needed to adopt these new ways of acting.	X			X				X	X

Built	I began to think about the reaction and feedback from my new behavior.	X										
	Reintegrated	X					X	X				
No change	I do not identify with any of the statements above.							X				
	Experienced	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N

(King, 1998)

Figure 1 – Concept Map: The Nature and Persistence of Teacher Beliefs and Their Relationship to the Teaching and Learning Process

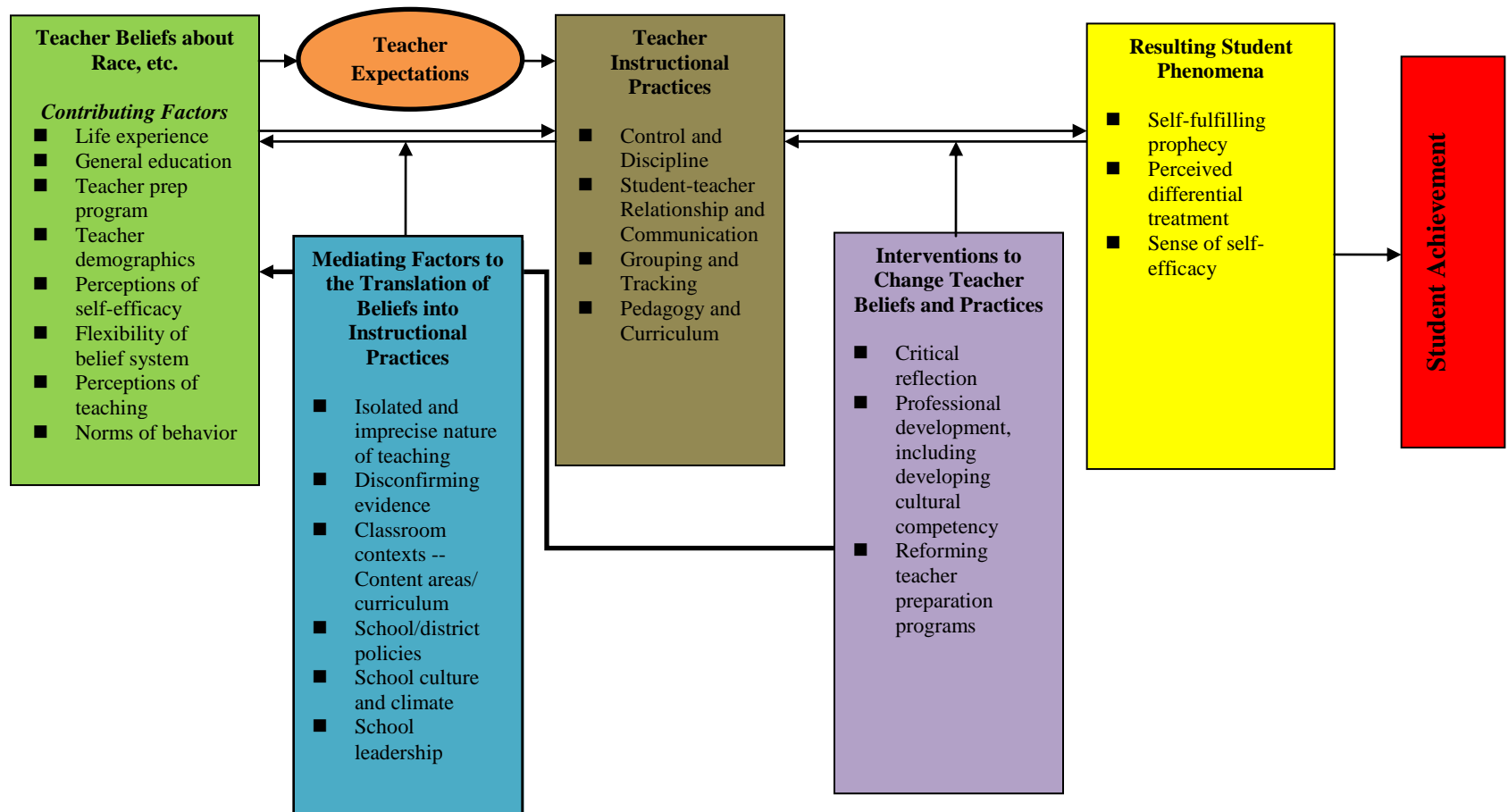


Figure 2 -- Mezirow's Frame of Reference/Meaning Perspective

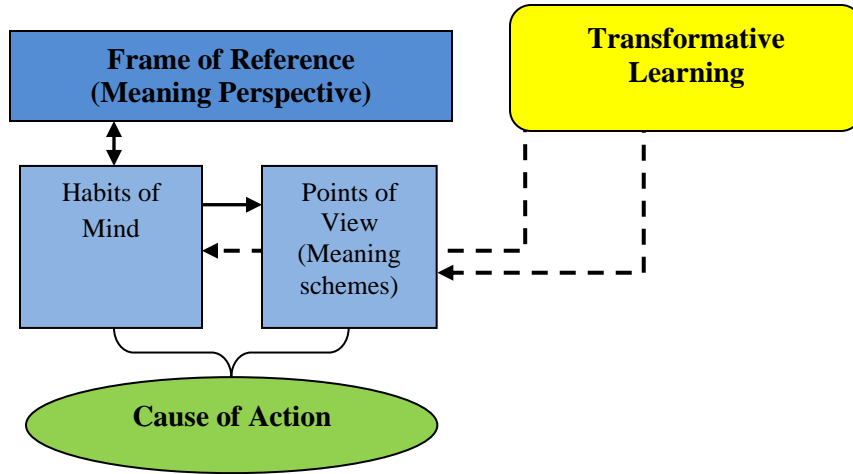


Figure 3 -- *Dimensions of Instructional Practices Influenced by Teacher Beliefs*

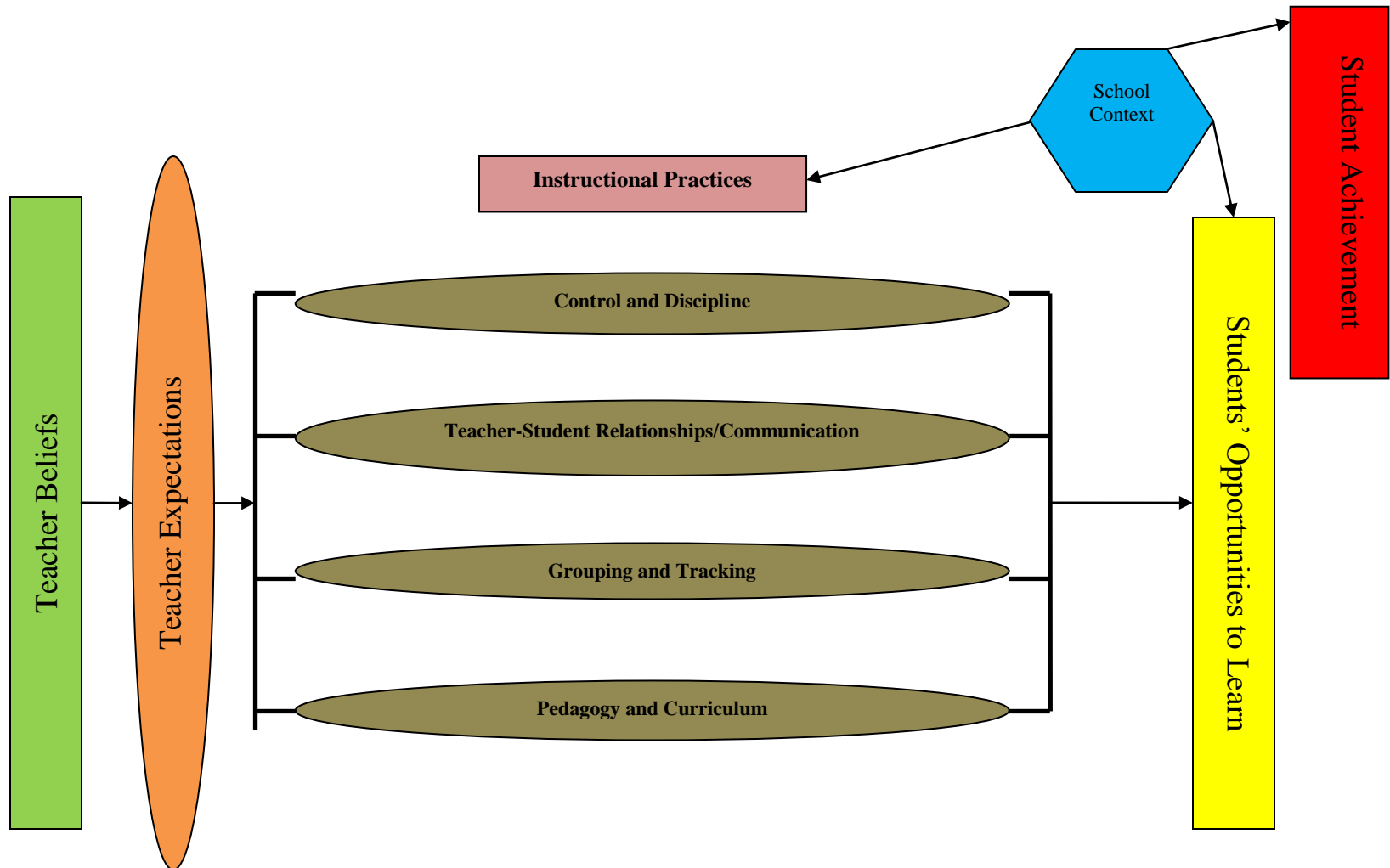
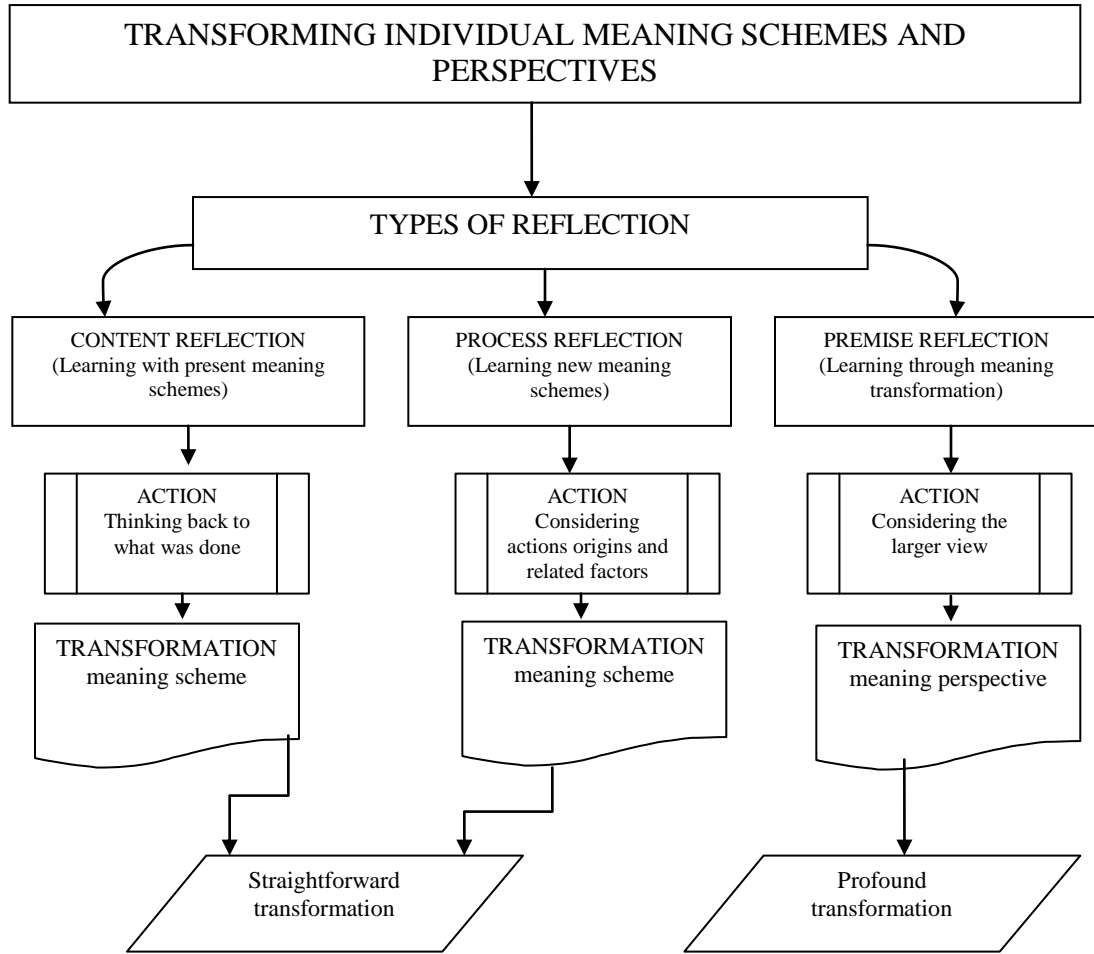


Figure 4 -- Diagrammatic Representation of the Three types of Reflection, Their Related Actions, Transformation and Depths of Change



(Mezirow, 1995 as cited in Kitchenham, 2008, p. 115).

Figure 5 -- TDSI Theory of Action
(Memo from Hawley to SPLC October 2007)

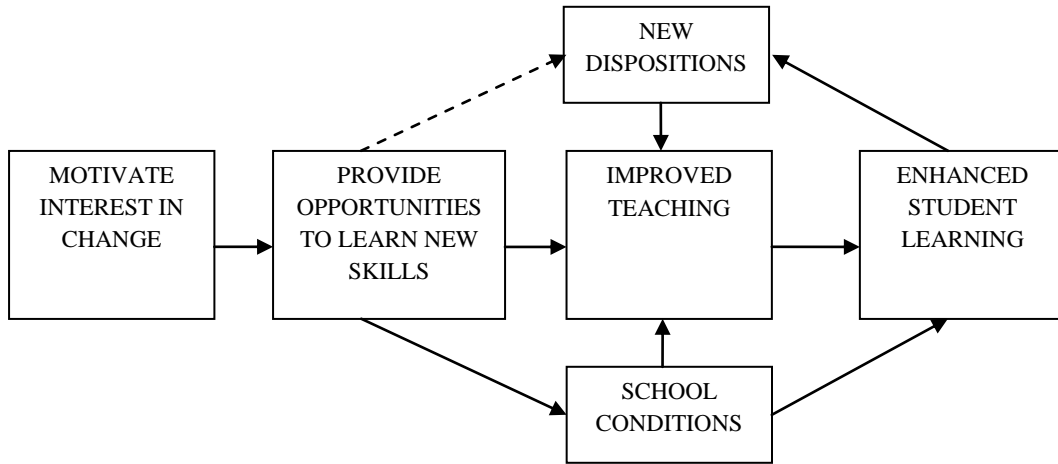
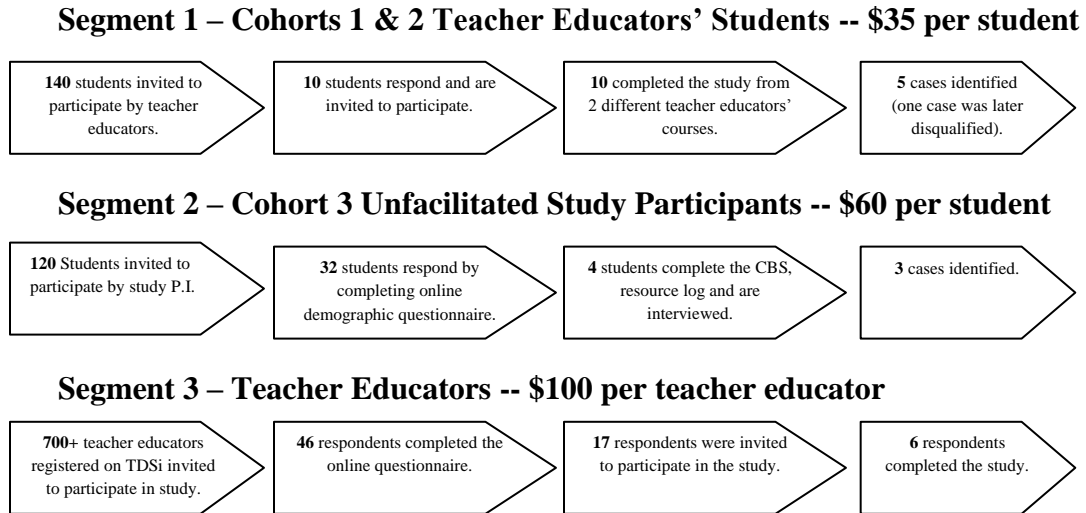


Figure 6 – Participant Segments and Sampling Processes



References

- Alger, C. L. (2009). Secondary teachers' conceptual metaphors of teaching and learning: Changes over the career span. *Teaching and Teacher Education*, 25 (2009), 743–751.
- Allington, R. (1980). Teacher interruption behaviors during primary grade oral reading. *Journal of Educational Psychology*, 72, 371-377.
- Anyon, J. (1981). Social class and school knowledge. *Curriculum Inquiry*, 11(1) (Spring 1981a), 3-42.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologies*, 37(2), 122-147.
- Banks, J. A. (1995). Multicultural education and curriculum transformation. *The Journal of Negro Education*, 64(4) (Autumn, 1995), 390-400.
- Banks, J.A. & Banks, C.A.M. (Eds.). (2004). *Handbook of research on multicultural education*. San Francisco, CA: Jossey-Bass.
- Baumgartner, L.M. (2001). An Update on transformational learning. *New Directions for Adult and Continuing Education*, 89 (Spring 2001), 15-24.
- Brock, S.E. (2010). Measuring the importance of precursor steps to transformative learning. *Adult Education Quarterly*, 60(2), 122-142.
- Brookfield, S.D. (1997). Assessing critical thinking. *New Directions for Adult and Continuing Education*, No. 75 (Fall 1997), 17-29.
- Brookfield, S.D. (2000b). Transformative learning as ideology critique. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress*. (pp. 125-150). San Francisco, CA: Jossey-Bass.
- Brophy, J. E. (1983). Research on the self-fulfilling prophecy and teacher expectations. *Journal of Educational Psychology*, 75(5), 631-661.
- Brophy, J. E. & Good, T. L. (1974). *Teacher-student relationships: Causes and consequences*. New York: Holt, Rinehart and Winston, Inc.
- Brown, D. (2004). Urban teachers' professed classroom management strategies: Reflections of culturally responsive teaching. *Urban Education*, 39(3), 266-289.
- Callahan, R. M. (2005). Tracking and high school English learners: Limiting opportunity to learn. *American Educational Research Journal*, 42(2), 305-328.

- Carter, D. (2008). *On spotlighting and ignoring racial group members in the classroom*. Retrieved from <http://www.tolerance.org/tdsi/asset/spotlighting-and-ignoring-racial-group-m>
- Cochran-Smith, M., Shakman, K., Jong, C., Terrell, D. G., Barnatt, J., & McQuillan, P. (2009). Good and just teaching: The case for social justice in teacher education. *American Journal of Education* 115 (May 2009), 347-377.
- Cooper, H. M. & Tom, D. Y. H. (1984). Teacher expectation research: A review with implications for classroom instruction. *The Elementary School Journal*, 85(1), *Special Issue: Motivation* (Sept., 1984), 76-89.
- Corbin, J. & Strauss, A. (2008). *Basics of qualitative research 3e: Techniques and procedures for developing grounded theory*. Thousand Oaks, CA: Sage.
- Cranton, P. (1996). *Professional development as transformative learning: New perspectives for teachers of adults*. San Francisco, CA: Jossey-Bass.
- Cranton, P. (2006). *Understanding and promoting transformative learning: A guide for educators of adults*. (2nd ed.). San Francisco, CA: Jossey-Bass.
- Daloz, L.A.P. (2000). Transformative learning for the common good. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress*. (pp. 102-123). San Francisco, CA: Jossey-Bass.
- Deissler, C.H. (n.d.) Changing beliefs versus changing concepts: Transformational learning as a tool for investigating and encouraging teacher belief change. *Trends and Issues*, 91-99.
- Delpit, L. (1995). *Other people's children: Cultural conflict in the classroom*. New York, NY: The New Press.
- Dirkx, J.M. (1997) Nurturing soul in adult learning. *New Directions for Adult and Continuing Education*, No. 74 (Summer 1997), 79-88.
- Freire, P. (1970). *Pedagogy of the Oppressed*. New York, NY: Continuum.
- Fuchs, L. S., Fuchs, D., & Phillips, N. (1994). The relation between teachers' beliefs about the importance of good student work habits, teacher planning, and student achievement. *The Elementary School Journal*, 94(3), 331-345.
- Gay, G. (1978). Viewing the pluralistic classroom as a cultural microcosm. *Educational Research Quarterly*. 2(4), p. 45—49.
- Gay, G. (2000). *Culturally responsive teaching: Theory, research & practice*. New York, NY: Teachers College Press.

- Gay, G. & Kirkland, K. (2003). Developing cultural critical consciousness and self-reflection in pre-service teacher education. *Teacher Reflection and Race in Cultural Contexts* (Summer, 2003), 181-87.
- Goldberg, I. (1971). Social class difference in teacher attitudes toward children. *Child Development*, 42(5) (Nov., 1971), 1637-40.
- Good, C. & Dweck, C.S. (2006). A motivational approach to reasoning, resilience, and responsibility. In R. Sternberg & R. Subotnick, (Eds.), *Optimizing student success in school with the other three Rs: Reasoning, resilience and responsibility*. Charlotte, NC: Information Age Publishing.
- Gorski, P.C. (2007a). *The question of class*. Retrieved from <http://www.tolerance.org/magazine/number-31-spring-2007/question-class>
- Gorski, P.C. (2007b). *The challenge of defining 'Multicultural Education'*. Retrieved from <http://www.educhange.org/multicultural/initial.html>
- Gorski, P. C. (2009). Cognitive dissonance as the strategy in social justice teaching. *Multicultural Education*, Fall 2009, 54-57.
- Grabov, V. (1997). The many facets of transformative learning theory and practice. In P. Cranton (Ed.), *Transformative learning in action: Insights from practice. New Directions for Adult and Continuing Education*, No. 74 (Summer 1991), n.p.
- Guerra, P. L. & Nelson, S. W. (2009). Changing professional practice requires changing beliefs. *Phi Delta Kappan*, 90(5), 354-359.
- Haberman, M. (1991). The pedagogy of poverty versus good teaching. *Phi Delta Kappan* (Dec. 1991), 290-294.
- Habermas, J. (1984). *The theory of communicative action: Volume 1. Reason and the rationalization of society*. Boston, MA: Beacon Press.
- Hawley, W.D. (2007). Designing schools that use student diversity to enhance the learning of all students. In E. Frankenberg & G. Orfield (Eds.), *Lessons in integration: Realizing the promise of racial diversity in American schools*. Charlottesville, VA: University of Virginia Press.
- Heck, R.H., Price, C.L., & Thomas, S.L. (2004). Tracks as emergent structures: A network analysis of student differentiation in a high school. *American Journal of Education*, 110(4) (Aug. 2004), 321-353.
- Herbers, M.S., & Mullins Nelson, B.M. (2009). Using the disorienting dilemma to promote transformative learning. *Journal on Excellence in College Teaching*, 20 (1), 5-34.

- Howard, T. C. (2003). Culturally relevant pedagogy: Ingredients for critical teacher reflection. *Theory in Practice*, 42(3) (Summer 2003), pp. 195-202.
- Hinnant, J. B., O'Brien, M., & Ghazarian, S.R. (2009). The longitudinal relations of teacher expectations to achievement in the early school years. *Journal of Educational Psychology*, 101(3), 662-670.
- Imel, S. (1998). *Transformative learning in adulthood*. (ERIC Publication No. ED423426 1998-00-00). Retrieved from <http://www.eric.gov>
- Jussim, L. (1986). Self-fulfilling prophecies: A theoretical and integrative review. *Psychological Review*, 93(4), 429-445.
- Kagan, D. M. (1992). Implications of research on teacher beliefs. *Educational Psychologist*, 27(1), 65-90.
- Katz, I. (1991). Gordon Allport's "The nature of prejudice". *Political Psychology*, 12(1) (Mar., 1991), 125-157.
- Kegan, R. (2000). What form transforms? In J. Mezirow & Associates (Eds.), *Learning as transformation* (pp. 35-70). San Francisco, CA: Jossey-Bass.
- Kennedy, M.M. (2010). Attribution error and the quest for teacher quality. *Educational Researcher*, 39(8), 591-598.
- Kerman, S. (1979) "Why did you call on me? I didn't have my hand up!": Teacher expectations and student achievement. *The Phi Delta Kappan*, 60(10) (June, 1979), 716-718.
- King, K.P. (1997). Examining learning activities and transformative learning. *International Journal of University Adult Education*, 36(3), 23-27.
- King, K.P. (1998). *A guide to perspective transformation and learning activities: The Learning Activities Survey*. Philadelphia, PA: Research for Better Schools.
- King, K.P. (2004). Both sides now: Examining transformative learning and professional development of educators. *Innovative Higher Education*, 29(2) (Winter 2004), 155-174.
- King, K.P. (2009). *Handbook of the evolving research of transformative learning: Based on the Learning Activities Survey (10th anniversary edition)*. Charlotte, NC: Information Age Publishing, Inc.
- King, P.M., & Kitchener, K.S. (1994). *Developing reflective judgment*. San Francisco: Jossey-Bass.

- Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory. *Journal of Transformative Education*, 6(2), (April 2008), 104-123.
- Kuhn, T. S. (1962). *The structure of scientific revolutions (3rd Ed.)*. Chicago, IL: The University of Chicago Press.
- Ladson-Billings, G. (1995). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal*, 32(30) (Autumn, 1995), 465-491.
- LeCompte, M. (1978). Learning to work: The hidden curriculum of the classroom. *Anthropology & Education Quarterly*, 9(1), 22-37.
- Love, A. & Kruger, A.C. (2005). Teacher beliefs and student achievement in urban schools serving African American students. *Journal of Educational Research*, 99(2), (November/December 2005), 87-98.
- McAllister, G. & Irvine, J. J. (2000). Cross-cultural competency and multicultural teacher education. *Review of Educational Research*, 70(1), 3-24.
- McKown, C. & Weinstein, R.S. (2008). Teacher expectations, classroom context, and the achievement gap. *Journal of School Psychology* 46 (2008), 235-261.
- Mensah, F. M. (2009). Confronting assumptions, biases, and stereotypes in pre-service teachers' conceptualizations of science teaching through the use of book club. *Journal of Research in Science Teaching*, 46(6), 1041-1066.
- Merriam, S. (2001). Andragogy and self-directed learning: Pillars of adult learning Theory. *New Directions for Adult and Continuing Education*, No. 89, 3-12.
- Merriam, S. (2004). The role of cognitive development in Mezirow's transformational learning theory. *Adult Education Quarterly*, 55(1), 60-68.
- Merriam, S.B. & Caffarella, R.S. (1999). *Learning in adulthood: A comprehensive guide*. San Francisco, CA: Jossey-Bass.
- Merriam, S.B. & Clark, M.C. (1992). Adult learning in good times and bad. *Studies in Continuing Education*, 14(1), 1-13.
- Merton, R.K. (1948). The self-fulfilling prophesy. *The Antioch Review*, 8(2) (Summer, 1948), 193-210.
- Mezirow, J. (1985). A critical theory of self-directed learning. In S. Brookfield (Ed.) *Self-directed learning: From theory to practice*. *New Directions for Continuing Education*. San Francisco: CA.

- Mezirow, J. (1991). *Transformative Dimensions of Adult Learning*. San Francisco: Jossey-Bass.
- Mezirow, J. (1997). Transformative learning: Theory to practice. *New Directions for Adult and Continuing Education*, No. 74, 5-12.
- Mezirow, J. & Associates. (1990). *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning*. San Francisco, CA: Jossey-Bass.
- Mezirow, J. & Associates (Eds.). (2000). *Learning as Transformation: Critical Perspectives on a Theory in Progress*. San Francisco, CA: Jossey-Bass.
- Minor, L. C., Onwuegbuzie, A. J., Witcher, A.E. & James, T.L. (2002) Pre-service teachers' educational beliefs and their perceptions of characteristics of effective teachers . *The Journal of Educational Research*, 96(2), 116-127.
- Montecinos, C. & Rios, F, A, (1999). Assessing pre-service teachers' zones of concern and comfort with multicultural education. *Teacher Education Quarterly*. 26(3), 7-24.
- Newmann, F. M. & Wehlage, G.G. (1995). *Successful school restructuring: A report to the public and educator*. Madison, WI: Center on Organization and Restructuring of Schools.
- Oakes, J. (1992). Can tracking research inform practice? Technical, normative and political considerations. *Educational Researcher*, 21(4), 12-21.
- Page, R. (1987). Teachers' perceptions of students: A link between classrooms, school cultures, and the social order. *Anthropology & Education Quarterly*, 18(2), 77-99.
- Pajares, F. M. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3) (Autumn, 1992), 307-332.
- Pohan, C.A. & Aguilar, T. E. (2001). Measuring educators' beliefs about diversity in personal and professional contexts. *American Educational Research Journal*, 38(1) (Spring, 2001), 159-182.
- Proctor, C.P. (1984). Teacher expectancy: A model for school improvement. *The Elementary School Journal*, 84(4) (March, 1984), 468-481.
- Ramsdell, R., Rose, R. & Kadera, M. (2006). PBS TeacherLine and Concord Consortium's Seeing Math Secondary: Scaling up a national professional development program. In C. Dede (ed.), *Online professional development for teachers: Emerging models and methods* (pp. 69-88). Cambridge, MA: Harvard Education Press.

- Raths, J. (2000). Teachers' beliefs and teaching beliefs. *Early Childhood Research & Practice*, Spring 2000, 385-391.
- Richardson, V., Anders, P., Tidwell, D., & Lloyd, C. (1991). The relationship between teachers' beliefs and practices in reading comprehension instruction. *American Educational Research Journal*, 28(3) (Autumn, 1991), 559-586.
- Rist, R.C. (1972). The milieu of a ghetto school as a precipitator of educational failure. *Phylon* (1960), 33(4), 348-360.
- Robertson, D. (1996). Facilitating transformative learning: Attending to the dynamics of the helping relationship. *Adult Education Quarterly*, 47(1), 41-53.
- Rosenthal, R. (1987). Pygmalion effects: Existence, magnitude and social importance. *Education Researcher* (December, 1987), 37-41.
- Rosenthal, R. & Jacobson, L. (1968). *Pygmalion in the classroom: Teacher expectation and pupils' intellectual development*. New York, NY: Holt, Rinehart and Winston, Inc.
- Ross, J. & Gray, P. (2006). School leadership and student achievement: The mediating effects of teacher beliefs. *Canadian Journal of Education/Revue canadienne de l'éducation*, 29(3), 798-822.
- Smith, F. & Luginbuhl, J. (1976). Inspecting expectancy: Some laboratory results of relevance for teacher training. *Journal of Educational Psychology*, 68, 265-272.
- Solomon, D., Battistich, V. & Horn, A. (1996). Teacher beliefs and practices in schools serving communities that differ in socioeconomic level. *The Journal of Experimental Education*, 64(4), 327-347.
- Southern Poverty Law Center. (2001.) The facilitator's guide. Retrieved from <http://www.tolerance.org/tdsi/asset/common-teacher-beliefs-survey-facilitato>
- Stake, R.E. (2006). *Multiple Case Study Analysis*. New York: The Guilford Press.
- Stanford University. (2004). *Thomas Kuhn*. Retrieved from <http://plato.stanford.edu/entries/thomas-kuhn/>
- Taylor, E. (2000). Analyzing research on transformative learning theory. In J. Mezirow and Associates (Eds.) *Learning as Transformation: Critical Perspectives on a Theory in Progress*. San Francisco: Jossey-Bass.

- Taylor, E. (2007). An update of transformative learning theory: A Critical review of the empirical research (1999-2005). *International Journal of Lifelong Education*, 26(2) (March-April, 2007), 173-191.
- Tettegah, S. (1997). The racial consciousness attitudes of white prospective teachers and their perceptions of the teachability of students from different racial/ethnic backgrounds: Findings from a California study. *Journal of Negro Education*, 65(2), 151- 163.
- Vaughta, S. E. & Castagnob, A. E. (2008). "I don't think I'm a racist": Critical Race Theory, teacher attitudes, and structural racism. *Race Ethnicity and Education*, 11(2) (July 2008), 95–113.
- Villegas, A.M. (1991). *Culturally responsive pedagogy for the 1990s and beyond*. Washington, DC: American Association of Colleges for Teacher Education.
- Webb, P. T. (2001). Reflection and reflective reaching: Ways to improve pedagogy or ways to remain racist? *Race Ethnicity and Education*, (4)(3), 245-252.
- Weinstein, R. S., Madison, S. M., & Kuklinski, M. R. (1995). Raising expectations in schooling: Obstacles and opportunities for change. *American Educational Research Journal*, 32(1) (Spring, 1995), 121-159.
- Yin, R. K. (2009). *Case study research: Design and methods*. Thousand Oaks, CA: Sage, Inc.
- Zieghan, L. (2001). "Talk" about culture online: The potential for transformation. *Distance Education*, 22(1), 144-150.