FACULTY PERCEPTIONS OF SELF-EFFICACY BELIEFS ABOUT FACILITATING DISCUSSIONS IN SMALL SEMINAR CLASSROOMS: A MIXED METHODS STUDY

by

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B.S., Bemidji State University, 1983
M.B.A., Syracuse University, 1992
M.S., Kansas State University, 2004

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF EDUCATION

Department of Education Leadership
College of Education

KANSAS STATE UNIVERSITY
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Abstract

This study examined faculty self-efficacy beliefs at the United States Army Command and General Staff College (CGSC) at Fort Leavenworth, Kansas. Faculty members at this military graduate degree-producing institution engaged in collaborative, student-centric, discussion teaching. The study considered how the independent variables of gender, age, ethnicity, academic title, leadership position, education level, and years of teaching experience affected faculty self-efficacy beliefs. Social cognitive theory provided the primary theoretical lens for the study. Discussion teaching and a framework for culturally responsive teaching formed part of the theoretical foundation. The goal included extending teacher self-efficacy concepts to higher education, further developing operational definitions, and providing an instrument suitable for measuring self-efficacy in higher education contexts. The study used mixed methods sequential explanatory research design with two data collection and analysis components: quantitative and qualitative. Faculty members ($N = 417$) received a 30-question Likert-type survey in December 2010. After quantitative data analysis concluded, in-depth interviews took place with 12 faculty members. A semi-structured interview of nine open-ended questions supported the qualitative portion of the study. Parametric analysis procedures examined the dependent variable, faculty self-efficacy beliefs, with respect to the independent variables. The results showed no significant differences in self-efficacy beliefs. Qualitative analysis using a computer-assisted program identified five themes: establishing a positive classroom environment, facilitating discussion, faculty and student preparation for discussion, questioning, and classroom sharing of combat and deployment experiences. Results of the study provided insights about faculty self-efficacy beliefs regarding facilitation of discussion that informed CGSC leadership decisions for future faculty development initiatives as well as insight for faculty to reflect on classroom best practices. The study contributed to the field of adult education by providing greater understanding of the faculty self-efficacy construct. Further research could examine faculty self-efficacy beliefs in non-military higher education contexts, among various faculty demographics and groups, and across higher education academic disciplines. Future studies could address how interventions such as faculty development or observation and feedback affect faculty self-efficacy beliefs in the classroom.

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Dedication

This dissertation is dedicated to my parents,
Harry C. Leslie (1917–2009) and Vernette L. Leslie.

You created a rich environment so that I learned to love learning. I will forever cherish my growing up on a farm in Northern Minnesota and learning the deeper lessons of life. You taught me to do the very best I can in all things, great or small. I know that this dissertation will not disappoint you.

Dad, I wish you were here to read this.

CHAPTER 1 - Introduction

Overview

Leaders of educational institutions faced incredible challenges as they made strategic decisions in response to financial crisis, changing student demographics, and a graying professoriate within a highly competitive and complex global environment (Berberet, 2008). In 2006, a consortium of college and university associations sent a letter to their constituents and explained the predicament in which higher education found itself:

> We are at a critical moment. Never has higher education been more important to America's long-term economic well being and social progress than it is today . . . . The challenges we face are real and urgent. We must address them with effective and timely changes if we are to serve American society as well in the future, as we have in the past. (American Council on Education (ACE), American Association of State Colleges and Universities (AASCU), American Association of Community Colleges (AACC), Association of American Universities (AAU), National Association of Independent Colleges and Universities (NAICU) & National Association of State Universities and Land Grant Colleges (NASULGC), 2006, p. 8)

The message was clear that higher education had to embrace change to remain a relevant player in America's domestic and international future. Stakes were high and leaders in higher education had to make tough choices about how to prepare students for global complexity. "A society with a poorly educated workforce cannot compete successfully in the international market place" (Bandura, 1997, p. 213). An imperative need existed for faculty to improve their self-efficacy beliefs about employing teaching skills that created and sustained classroom environments so students developed the cognitive sophistication necessary for changing their life course (Bandura, 2008; Brookfield, 2005; Kegan, 1998). Higher education institutions needed to increase faculty capacity to assist students with developing ways of thinking beyond their cultural understanding so they grasped problems from multiple perspectives. This capacity for critical thinking was essential if civilized communities wished to resolve complex problems and to "learn our way out of these crises" (Brookfield, 2005, p. 221).

Preparing faculty so they could teach students how to use their cognitive competencies to adapt in a rapidly changing society was not easy work (Berberet, 2008) and rested "heavily on the talents and self-efficacy of teachers" (Bandura, 1997, p. 240). Without strong self-efficacy beliefs, faculty were not ready to meet the challenges of the classroom as envisioned by Bandura and Brookfield. Social cognitive theory described individuals as agentic, meaning they could intentionally take part in self-development and adaptation to changing student needs (Bandura, 1989, 2001). Therefore, social cognitive theory was an appropriate lens to address how faculty developed their competencies, regulated behavior, and applied skills through the process of triadic reciprocal causation (Bandura, 1997; 2006b). Faculty members were more than mere spectators who sat idly as events occurred around them.

At the heart of social cognitive theory was the concept of self-efficacy, described as a personal factor that served to mediate the interactions among knowledge, behavior, and the environment. Bandura (1997) wrote that self-efficacy was individual beliefs about "their capabilities to organize and execute the courses of action required to produce given attainments" before the behaviors were exhibited in the environment (p. 3). What individual faculty members believed about their capability to perform specific teaching skills in the classroom affected their practice through the selection of teaching methods, their motivation to follow through with those methods, their persistence when they encountered difficulties in the classroom environment, and their ability to recover after perceived failure (Bandura, 1997; Dellinger, 2001; Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998).

The current mixed methods study determined the effects of independent variables of gender, age, ethnicity, educational level, teaching experience, academic title, and leadership position on the dependent variable of faculty self-efficacy beliefs about facilitating discussions within small group seminar classrooms. According to Luzzo (1993), individuals who experienced negative thought patterns or emotional reactions brought about by discrimination or barriers to academic success because of their gender, age, ethnicity, and so on chose to avoid positive career behaviors and gave up more quickly when they encountered problems. Females and People of Color may have established patterns of inability that ultimately led to career failure, or they might have

settled for something less than success (Ancis & Phillips, 1996; Quimby & DeSantis, 2006; Quimby & O'Brien, 2004; Rivera, Chen, Flores, Blumberg, & Ponterabo, 2007; Vasil, 1996). Faculty members, especially new teachers, were susceptible to low self-efficacy beliefs that affected their career decisions and classroom practices (Chambers & Hardy, 2005; Mir, 2003; Onafowora, 2005; Rikard, 1999).

Faculty in higher education played an important role in preparing students for the demands of solving society's complex issues. What faculty believed about their teaching capabilities affected their classroom teaching behaviors (Morrell & Carroll, 2003; Yeung & Watkins, 2000). Bandura's social cognitive theory provided a framework for understanding the reciprocal relationship of personal factors, teaching behaviors, and the classroom environment. Self-efficacy offered an explanation about faculty classroom practices that were essential for maintaining America's intellectual capital by developing student capacity for critical thinking and "a deep sense of moral codes and ethical behavior" (Ferguson, 2009, p. 5).

Background

Effective faculty classroom practices received a great deal of attention in educational research literature, such as balancing intentions, actions, and beliefs (Pratt, 1998), creating motivating learning environments (Wlodkowski, 2008), and developing cultural sensitivity and democratic processes (Brookfield, 2005). Other researchers stressed professional best practices (Bain, 2004), faculty vitality (Bland & Berquist, 1997), faculty motivation (Blackburn & Lawrence, 2002), and faculty productivity (Middaugh, 2000).

Brookfield and Preskill (2005) stressed discussion as a way of teaching but acknowledged that other classroom teaching methods played an important role. All the theorists identified teacher accountability for what happened within the classroom as an essential component of success (American Association of University Professors [AAUP], 1991; Brint, 2008; Ferguson, 2009; Krebs, 2008; Wheelan, 2009). Additionally, literature reported higher education institutions had to deal with rapidly changing student demographics, dwindling resources, and students who were ill prepared for the college classroom (Andom, 2007; Hoover, 2009; Jacobs & King, 2002; Jamieson, 2007). Faculty

had to refresh professional competence while under pressure to keep ahead of stiff international education competition (American Council on Education (ACE) et al., 2006; Berberet, 2008; Ferguson, 2009; Harvey, 2009).

Social cognitive theory provided an explanation as to how numerous factors such as those already mentioned affected faculty teaching decisions and behaviors (Bandura, 1997; Schunk & Pajares, 2005). Social cognitive theory, based on a model of triadic reciprocal causation, provided an explanation as to how personal factors (biological, cognitive, affective), behaviors, and the environment interacted with one another, as shown in Figure 1.1 (Bandura, 2007). In this study, the personal factors included faculty self-efficacy beliefs. The environment was the small group seminar classroom. Faculty behaviors were those associated with facilitating discussions.

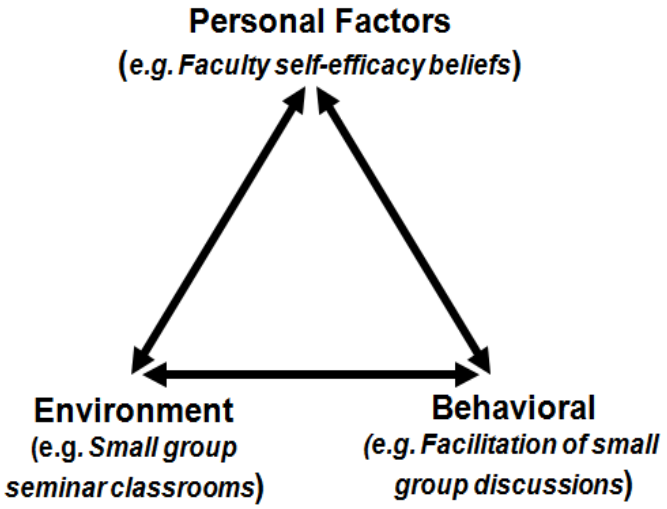

Figure 1.1. Model of triadic reciprocal causation. Adapted from *Self-Efficacy: The Exercise of Control* by A. Bandura, 1997, p. 6. Copyright 1997 by W. H. Freeman & Company, New York, NY.

At the center of social cognitive theory was the concept of self-efficacy beliefs. According to Bandura (1997) these beliefs influenced

> The courses of action that people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-hindering or self-aiding, how much stress and depression they experience in

> coping with taxing environmental demands, and the level of accomplishments they realize. (p. 3)

The term *efficacy*, often associated with the study of self-efficacy, continued to cause conceptual and construct confusion for researchers. Whereas *self-efficacy* focused on perceptions of capability to engage in specific behaviors, *efficacy* was a belief in one's ability to affect performance or achievement (Dellinger, 2001, 2008). Differentiating these constructs was critical to this study. When researchers used terms such as efficacy and self-efficacy interchangeably, the constructs, operational definitions, measures, data, and findings became a conceptual mess (Dellinger, 2001, 2005, 2008; Maddux, 1999; Wheatley, 2005). Review of literature identified several pivotal teacher efficacy and teacher self-efficacy studies that had, as Dellinger (2001) stated, "conceptual inconsistencies and methodological inadequacies" (p. 110). How a researcher used constructs and definitions of terms in those constructs affected the validity and relevance of the study as well as the usefulness of the measures (Dellinger, 2005; Maddux, 1999; Messick, 1995; Pajares, 1992, 2002; Wheatley, 2005). Researchers had an obligation to ensure their studies were valid because future lines of investigation used their data, measures, and findings as support (Dellinger, 2001, 2005; Messick 1995).

Studies about teacher efficacy and self-efficacy stemmed from two sources. The first was Rotter's (1966) theory about generalized expectancies for internal versus external control of reinforcement; specifically, the concept of locus of control. The second was teacher self-efficacy beliefs based on Bandura's (1977, 1997) social cognitive theory. Rotter's locus of control and Bandura's self-efficacy construct represented different phenomena because, "Beliefs about whether one can produce certain actions *(perceived self-efficacy)* cannot . . . be considered the same as beliefs about whether actions affect outcomes *(locus of control)* [italics original" (Bandura, 1997, p. 20). Self-efficacy was a good predictor of behavior, whereas Rotter's locus of control was a "generally weak or inconsistent predictor of the same behaviors, suggesting that outcome expectations have little or no impact on behavior" (Bandura, 1997, p. 20).

The present study differentiated teacher self-efficacy from teacher efficacy. Dellinger (2001) said that teacher self-efficacy beliefs were personal factors that mediated the linkages between knowledge and behavior as well as the environment. In

contrast, other researchers have shown teacher efficacy as closely tied to student achievement and performance (Armor, Conry-Oseguera, Cox, King, McDonnell, & Pascal, 1976; Berman, McLaughlin, Bass, Pauly, & Zellman, 1977; Maddux, 1999; Wheatley, 2005). Dellinger (2001) pointed out that the Armor et al. definition of teacher efficacy included a teacher's "belief in their ability to affect student performance" (p. 11).

In addition to the personal factors, the model of triadic reciprocal causation, acknowledged the important role of the environment. Bandura (2001b, p. 15) reasoned that the environment was "not a monolithic entity." Instead, it had three sub-structures of imposed environment, selected environment, and constructed environment.

According to Bandura (2001b) and Blakemore, Berenbaum, and Liben, (2009), people often had no choice about the imposed environment. Individuals had to accept the imposed environment and yet they exerted little control over it. In academia, faculty often found themselves in institutional environments over which they had little or no control. These environments possessed characteristics that, according to Brookfield (2005), were hegemonic and, while claiming to be democratic, actually alienated faculty members and students. However, faculty had choices about the courses of action they pursued in reaction to that environment.

These choices brought other people, activities and the context together in what Bandura (2001b) termed the selected environment. In other words, the selected environment was one individuals "choose for themselves" (Blakemore et al., 2009, p. 202). Thus, people who acted in an agentive capacity could generate or construct their selected environment.

Faculty had a choice as to how they constructed their individual classrooms to reflect a motivating (Wlodkowski, 2008) and democratic (Brookfield, 2005) learning environment capable of producing "educated citizens who can learn continuously and work with diversity" (Fullan, 2007, p. 7). A constructed environment, according to Bandura (2001b), was one built by the individual based on "what they choose to think or how they use something in the environment," (Blakemore et al., 2009, p. 202). Faculty could exercise their agentic capacity to construct an environment that allowed participants to experience success and choose the learning activity in which they wished

to engage. Faculty could find value in learning and enjoy the learning process (Wlodkowski, 2008).

The final critical component in the model of triadic reciprocal causation was behavior. Bandura (2007) identified behavior as a construct derived from knowledge structures based on social models and rules. Self-efficacy beliefs served to mediate the interaction between the environmental influences and exhibited behaviors. In other words, what individuals believed about their capability to engage in specific behaviors within specific contexts affected their choice of those behaviors, motivation, persistence, and resilience. In turn, those behaviors influenced the constructed environment selected by the individual. Faculty behaviors fit nicely into the preceding explanation. This study focused on behaviors associated with facilitating discussions in small group seminar environments and the faculty self-efficacy beliefs preceding those behaviors.

Problem Statement

Previous literature did not fully address the conceptualization of faculty self-efficacy beliefs in a higher education classroom context. In the aforementioned, faculty self-efficacy beliefs had a powerful impact on classroom behavior. The problem was to examine the independent variables of gender, age, ethnicity, academic title, leadership position, education level, and teaching experience to determine if they influenced faculty self-efficacy beliefs in the context of higher education small group seminar environments.

First, a number of studies described teacher self-efficacy beliefs in elementary and secondary schools (K-12). Assuming those constructs were directly applicable to faculty in higher education was inappropriate. Second, current literature lacked a consistent operational definition of the teacher self-efficacy construct within higher education contexts. Thus, the present study contributed to clarifying the term *faculty self-efficacy beliefs*. Third, current teacher self-efficacy measurement instruments, appropriate for K-12 environments, might not have been suitable for higher education classroom contexts. The present study adapted an existing self-efficacy measurement instrument. Fourth, inadequate differentiation of teacher self-efficacy and teacher efficacy constructs resulted in a majority of teacher self-efficacy instruments having psychometric or theoretical problems. Building on Dellinger's (2001) research about teacher self-efficacy beliefs, the

present study contributed to the continuing development of the faculty self-efficacy construct.

Purpose Statement

The results of this study determined if gender, age, ethnicity, academic title, leadership position, education level, and years of teaching experience affected faculty self-efficacy beliefs. The study accomplished five goals. First, it extended the conceptualizations of K-12 teacher self-efficacy to a higher education context. Second, the study provided operational definitions of faculty self-efficacy to reinforce or extend current understanding of the topic. Third, it provided an instrument suitable for measuring faculty self-efficacy beliefs. Fourth, the study produced conceptually and psychometrically sound faculty self-efficacy measures. Fifth, it provided thick description of faculty self-efficacy beliefs in a higher education context through in-depth interviews.

Significance of Study

Individual self-efficacy beliefs were a major determinant in career-planning decisions, pursuit of education goals, development of occupational skills and abilities, and choice of task engagement (Bandura, 1997; Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Betz & Hackett, 1986; Choi, Price, & Amiraim, 2003). In academic settings, self-efficacy helped to explain teacher "instructional activities and their orientation toward the education process" (Schunk & Pajares, 2005, p. 99).

These activities were not entirely a private matter; they affected and were affected by the environment as well as by individual behaviors. Social cognitive theory accounted for those influences through the model of triadic reciprocal causation. Thus, individuals with high self-efficacy beliefs considered a greater number of task options, displayed more interest in those options, prepared more thoroughly to engage in their choice of options, and had greater staying power when encountering problems or barriers. Individuals with low self-efficacy beliefs might have avoided certain tasks or, if engaged, might not have persevered during times of stress or difficulty (Stajkovic & Luthans, 1998). If people lacked self-efficacy or were unsure about their abilities, they might not

have put much effort into work-related planning, task engagement, or long-term sustainment in a series of actions required for success (Bandura, 1997; Bandura et al., 2001).

Stajkovic and Luthans (1998) conducted a meta-analysis covering two decades of empirical self-efficacy research literature and found a "significant weighted average correlation between self-efficacy and work-related performance" (p. 246). Stajkovic and Luthans noted that business and management disciplines embraced self-efficacy because of the potential application to work performance, and "the nature and scope of the studies included in this meta-analysis support this development" (p. 255).

Self-efficacy had a strong and positive relationship to work-related performance, including the academic workplace. However, undesirable environmental factors within the education workplace influenced individual self-efficacy beliefs about selecting and engaging in teaching tasks (Bandura & Cervone, 1986; Stitt-Gohdes, 1997). Discriminatory behaviors associated with tenure practices and cultural stereotypes affected faculty ratings, misperceptions about older faculty abilities, bestowing academic titles, biases about contingency (adjunct) versus tenure status, and teaching versus research experience. Bandura (1997) noted, "Efficacy beliefs are diminished by experiences arising from gender barriers as well as social class barriers" (p. 188). Although cultural changes had opened doors for women and minorities, the lingering effects of sociocultural stereotypes on self-efficacy beliefs for traditionally male or White-dominated occupations affected judgments of capability. Furthermore, Schunk and Pajares (2005) stated, "There is a need to discover additional correlates of teacher self-efficacy, as well as to understand how it influences educational outcome variables, such as instructional practices" (p. 99).

Dellinger (2008) noted further research into teacher self-efficacy was necessary to refine what researchers currently understood about the construct. Regarding the instruments used to measure self-efficacy, Dellinger was adamant that the instruments had to be psychometrically sound. The Teacher Efficacy Beliefs Scale–Self (TEBS-S),

> Could be refined through continued use in future research. Specifically, research that extends what is known about how teachers' self-efficacy beliefs are structured, how these beliefs impact teachers' behaviours and student

> achievement, and how outcome expectations play a part in this relationship is important to pursue. (Dellinger, 2008, p. 763)

The present study analyzed how the independent variables affected self-efficacy beliefs. The study provided an opportunity for U.S. Army Command and General Staff College (CGSC) leadership to consider inclusion of experiences in faculty development programs that strengthened self-efficacy beliefs. Finally, the study contributed to the field of adult education regarding the role of self-efficacy in teacher classroom practices.

Research Design

Mixed methods sequential explanatory research designs are two-phased studies beginning with quantitative data collection and analysis in phase one, followed by qualitative data collection and analysis in phase two. The qualitative data further explains the quantitative data, thus contextualizing the first phase and providing a holistic view for the study. Between the first and second phases is a bridge wherein quantitative data analysis leads to refinement of interview questions for phase two.

Research Questions

Quantitative

The primary quantitative research question was, "What were faculty self-efficacy beliefs about their capability to facilitate discussion in small group seminars?" Secondary quantitative questions were stated as null hypotheses.

$H1_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable gender.

$H2_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable age.

$H3_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable ethnicity/race.

$H4_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable education level/degree.

$H5_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable teaching experience.

$H6_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable academic title.

$H7_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable leadership position.

Qualitative

The qualitative research question was, "How do faculty perceive themselves as facilitators of discussion in the classroom?" The interview protocol questions were used to gather the data to answer the research question.

Assumptions and Limitations

Assumptions

Two assumptions affected this study. First, faculty were honest and candid in their survey and interview responses. Second, faculty who participated in the survey and interviews represented the U.S. Army Command and General Staff School population.

Limitations

Two limitations affected the use of the findings in this study. First, due to the unique target population, the findings from this study had limited generalization to other civilian and military education institutions. Second, because the participants' self-reported survey and interview data, their responses were limited to their current teaching experience and might not have reflected their experience in other teaching contexts.

Methodology

Research Design

Pragmatism, most commonly associated with mixed methods research, focuses on answering the research questions rather than whether a particular research perspective dominates the study (Creswell & Plano Clark, 2007; Tashakkori & Teddlie, 1998, 2002). The present study used a pragmatic approach, allowing for a holistic description of faculty self-efficacy to emerge from two research perspectives. Those perspectives, one a positivistic inductive view (quantitative), and the other, a constructivist deductive view (qualitative), employed different sets of data collection and analysis tools that provided unique descriptions of the same phenomena (Bradley, 2003).

Neither perspective was privileged. However, in the sequential explanatory design employed in the study, the qualitative data collection and analysis received the greater emphasis (Creswell & Plano Clark, 2007). The quantitative-to-qualitative structure allowed for triangulation of data through alternate means of collection. It provided for the pragmatic validity of the study, wherein the researcher made comparisons of data that led to the formation of judgments about that data (Brink, 1991; Knafel & Breitmayer, 1991). The strength of the mixed methods explanatory design was that triangulation of quantitative and qualitative data provided for validity through a "search for convergence among multiple and different sources of information to form themes or categories" (Creswell & Miller, 2000, p. 126).

The present study operationalized self-efficacy definitions and constructs through the interpretation of data collected by survey and semi-structured interviews. It used both inductive and deductive research processes by means of a mixed methods sequential explanatory design, as shown in Figure 1.2 (Creswell & Plano Clark, 2007, p. 73). The first phase focused on quantitative data collection and analysis, followed by a second phase consisting of qualitative data collection and analysis. Phase one quantitative data, alone, could not adequately address faculty classroom experiences because of the limited information numbers could provide about the context of the study. However, follow-on qualitative interviews from phase two provided a holistic contextualization of individual

experiences that situated the numeric information (Creswell, 2007; Creswell & Plano Clark, 2007).

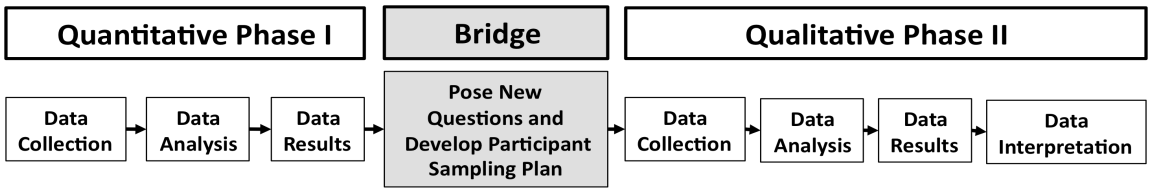

Figure 1.2. Sequential explanatory design: Participant selection model. Adapted from *Designing and Conducting Mixed Methods Research* by J. W. Creswell and V. Plano Clark, 2007, p. 73. Copyright 2007 by Sage Publications, Thousand Oaks, CA.

A bridge between the first and second phases provided an opportunity to refine the tentative qualitative interview questions based on the quantitative data analysis. Additionally, the bridge provided an opportunity for purposeful selection of participants for the in-depth interviews. Once the interview protocol was refined and the participant selection was complete, the second phase began with qualitative data collection, followed by analysis. The final step of the second phase was the interpretation of data from phases one and two with an emphasis on the qualitative data.

Mixed methods research focuses "on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies" (Creswell & Plano Clark, 2007, p. 5). The rationale for selecting this research design was "Its central premise of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone" (Creswell & Plano Clark, 2007, p. 5). Additionally, both the quantitative and qualitative research methods were valuable and complemented one another to gain a greater depth and breadth of understanding about how multiple factors affected the study (Creswell & Plano Clark, 2007; Knafel & Breitmayer, 1991; Wiersma, 1991; Wheatley, 2005).

The methodology used in the study helped achieve greater research sophistication (Johnson & Onwuegbuzie, 2004), answered questions that neither quantitative nor qualitative designs could answer singly (Tashakkori & Teddlie, 2002), facilitated understanding via a common research language (Johnson & Onwuegbuzie, 2004), and provided for a synergistic, holistic understanding (Day, Sammons, & Gu, 2008). Additionally, from the pragmatic perspective, the study provided a strong empirical

support base for research (Desimone, 2009) and avoided depending on a specific theory or method of research while acknowledging the contributions from multiple perspectives across the literature, theories, and research methods (Weis, Jenkins, & Stich, 2009). Finally, renewed emphasis on research rigor and a call for increased sophistication of evidence in support of research conclusions stressed the importance of qualitative data able to provide stronger evidence for the conclusions (Creswell & Plano Clark, 2007; Johnson & Onwuegbuzie, 2004).

Population

Quantitative

The population used for phase one of the study was the faculty (N =417) located at the United States Army Command and General Staff College (CGSC), Command and General Staff School (CGSS) main campus at Fort Leavenworth, Kansas, and three satellite campuses located at Fort Belvoir, Virginia; Fort Lee, Virginia; and Fort Gordon, Georgia (U.S. Army CGSC Accreditation Coordination Office, 2009).

Qualitative

The population used for phase two of the study consisted of faculty who responded to the survey during phase one. A smaller, purposive sample ($n = 13$) of faculty members was contacted for the semi-structured interviews (Creswell & Plano-Clark, 2007). Chapter 3 provides more information about the purposive sample.

Instrumentation

Quantitative

Many of the instruments used to measure self-efficacy had theoretical or construct issues that precluded their use in this study. In order to measure self-efficacy beliefs according to Bandura's (1997) self-efficacy theory, Dellinger (2001) developed the Teacher Efficacy Beliefs Scale-Self (TEBS-S), followed by a shorter 2008. Dellinger (2001, 2008) ensured the instrument had a solid theoretical foundation and that the question item stem aligned with Bandura's theory of self-efficacy. Additionally, Dellinger (2008) ensured the instrument assessed "teachers' self-efficacy beliefs in the

context in which the beliefs were formed" (p. 756). Finally, Dellinger ensured the tasks used in the instrument were meaningful to educators. Three independent studies (Bobbett, 2001; Dellinger, 2001; Olivier, 2001) established the internal consistency and validity of the TEBS-S. The TEBS-S reliability used Cronbach's alpha as an indication of internal reliability. The three studies had alphas ranging from .78 to .87.

In phase one of the present study, a 30-question survey called the Faculty Self-Efficacy Beliefs Scale (FSEBS) was the instrument used for quantitative data collection. The FSEBS emerged from the base of Dellinger's 2008 TEBS-S. Dellinger's TEBS-S underwent modification to allow its accurate use to measure self-efficacy beliefs of faculty in higher education contexts.

Qualitative

Studies by Dillman (2001), Creswell (2007), and Oppenheim (2000) formed the basis for developing the interview protocol. In addition, after the quantitative data analysis was complete, the interview protocol was further refined and submitted to four subject matter experts for review. The subject matter experts had extensive experience in qualitative research and development of survey instruments. Finally, three pilot interviews with faculty at the CGSC reduced interview process errors associated with improperly worded or ambiguous questions.

Data Collection Procedures

Quantitative

The CGSC Quality Assurance Office (CGSC QAO) was the gateway for developing and delivering the FEBS though an online survey development software package called Inquisite Survey System, Survey Design 9.0. Inquisite provided a user-friendly platform that included survey notification, participant acknowledgements, easily navigable survey forms, and follow-up messages. Inquisite software ensured survey responses had no participant identification information attached to the replies. In cases where individuals failed to respond, Inquisite automatically sent reminders to encourage participation in the survey. The CGSC QAO maintained the data from the FSEBS in a secure, firewalled server that was not accessible by the public.

Qualitative

Faculty responding to the quantitative survey had an opportunity to contact the researcher regarding their availability for an interview. Using the responses, along with the purposeful sampling matrix in Chapter 3, the researcher compiled a purposefully selected list of faculty for the interviews. A follow-up e-mail or telephone call confirmed faculty availability for the interview. The purposeful sampling strategy was appropriate for this study because it enabled collection of the demographics of the independent variables (Morse, 1991b; 2003).

An expert panel reviewed the interview protocol. Additional details about this expert panel appear in Chapter 3. The panel recommended improvements to the questions that contributed to the credibility and confirmability of the data. Qualitative data collection procedures followed Brink's (1991) guidance for maximizing interview data consistency, stability, and equivalency. When faculty members agreed to participate in the interview, a follow-up phone call facilitated arrangement of the date and time of the meeting. Digital recording and professional transcription helped to ensure accuracy of the interviews. Transcribed interviews allowed for member checking as well as for independent coding. All recordings and transcripts were secure from public access, thereby protecting participant confidentiality.

Data Analysis Procedures

Quantitative

Statistical Package for the Social Sciences (19.0), also known as SPSS, was the software used for statistical calculations. The online Inquisite software program exported data directly into SPSS using a Microsoft Excel spreadsheet. However, both visual review and descriptive statistics were useful to ensure data transferred properly from the Inquisite Excel spreadsheet into SPSS. Statistical calculations included Cronbach's alpha for instrument reliability, tests for data normality and homogeneity of variance, and analysis of variance (ANOVA) data analysis.

Qualitative

A professional transcribing service converted digital recordings of the interviews into Microsoft Word documents. The transcriber signed a non-disclosure statement. Participants received their individual transcribed interview data for member checking. Member checking provided for additional clarification of data and fact checking. If transcripts had errors, participants were encouraged to make changes. This process contributed to qualitative research credibility, dependability, and confirmability.

Brink (1991) stated that qualitative analysis involves categorizing and ordering to account for the inclusion or exclusion of data, mutually exclusive coding categories, and sufficiency of content coverage by the categories (Brink, 1991). Consequently, the computer-assisted qualitative data analysis software package MAXQDA 10+ was the package used to code the qualitative data. Input from independent coders combined with member checking of the transcripts provided increased objectivity and helped mitigate researcher bias.

Protection of Human Rights

The application to conduct the research at the US Army Command and General Staff College, Fort Leavenworth, Kansas (see Appendix A) was approved by the CGSC QAO on June 3, 2010 (see Appendix B) and was assigned research control number 09-080. The Kansas State University Institutional Review Board approved the application to conduct research at KSU (see Appendices C and D) on June 16, 2010, and assigned it tracking number 5438. The U.S. Army Management Staff College approved the request to conduct a pilot study (see Appendix E) on June 30, 2010.

Participants signed acknowledgement statements advising them of their rights. Individuals who transcribed or reviewed data signed non-disclosure statements. All data, records, and field notes remained safeguarded to prevent public disclosure of survey and interview responses.

Definitions

Academic title. The terms *instructor, assistant professor, associate professor,* or *professor* used by the CGSC to distinguish among faculty members. The term *academic title* was the variable label in the present study.

Ability. Bandura noted that ability was the actual level of development. Based on Bandura (n.d., para. 3), The quality of being able. It refers to competence in doing, skill, and proficiency that has already been acquired. It is what we can do in the present. Self-efficacy for present ability was called "self-efficacy for performance," which was our confidence that we could do a particular task immediately.

Age. The age of the faculty was stated in years. *Age* was the variable label in this study.

Army civilian corps employee. Referred to any individual directly hired by the United States Army under Title V–Government Organization and Employees and Title X–Armed Forces. Title V pertains to any individual appointed in the civil service and engaged in the performance of a federal function under the authority of law. Title X employees include those individuals hired for a specified period of time, usually three years, to serve as faculty at the United States Army Command and General Staff College. These individuals may be rehired for additional tours ranging from one to four years.

Capability. According to Bandura (n.d., para. 3), capability is a belief that a person has about what he or she could do in the future with appropriate instruction or what the individual believes he or she could learn to do; it is the potential for development.

Classroom environment. This is based on Wlodkowski's (2008) *Motivational Framework for Culturally Responsive Teaching,* which incorporates four essential conditions necessary for a motivational classroom environment. First is inclusion, which is establishing an "awareness of adults that they are part of the learning environment" (p. 102). Second is creating a willingness to respond favorably to learning by helping "people make sense of their world and give cues as to what behavior will be most helpful in dealing with that world" (p. 105). Third, within the sociocultural context of the classroom, meaning occurs through increasing complexity of what occurs within the learning environment and is "connected to an ultimate goal" (p. 108). Fourth, Wlodkowski added the idea of competence, a predisposition to "explore, perceive, think about, manipulate, and change our surroundings . . . to accomplish a more able relationship with our environment" (p. 110).

Dialogue. According to Isaacs (1999), dialogue is "a shared inquiry, a way of thinking and reflecting together . . . a living experience of inquiry within and between people" (p. 9).

Discussion. "Incorporates reciprocity and collaboration, formality and informality . . . by a group of two or more to share views and engage in mutual and reciprocal critique" (Brookfield & Preskill, 2005, p. 7). The purposes of discussion are fourfold: (a) to help participants reach a more critically informed understanding about the topic or topics under consideration, (b) to enhance participants' self-awareness and their capacity for self-critique, (c) to foster an appreciate among participants for the diversity of opinion that invariably emerges when viewpoints are exchanged openly and honestly, and (d) to act as a catalyst to help people take informed action in the world (Brookfield & Preskill, 2005, p. 6).

Education level. The highest degree obtained, which started at the master's level in this study. The degree level did not include certification or specialized training unless those types of recognitions also resulted in the award of a degree. *Education level* was the variable label in this study.

Efficacy. Refers to individual confidence in the ability to achieve specific goals or tasks (Greene & Miller, 1996).

Ethnicity. Also see race. Ethnicity is a distinct concept separated from the concepts of race and culture (Banks & Banks, 2009; Smedly & Smedly, 2005). *Ethnicity/Race* was the variable label in this study.

Facilitation. Two authors provided definitions for this term.

> Focus on the needs and goals of learners in a flexible manner . . . Oversees, guides, and directs learners by asking questions, exploring options, suggesting alternatives, and helping students develop criteria to make informed choices about courses of action . . . Overall goal is to develop a capacity for independent action, initiative, and responsibility. (Grasha, 2002, p. 146)

> A process in which a person who is acceptable to all members of the group, is substantively neutral, and has no decision making authority intervenes to help a group improve the way it identifies and solves problems and makes decisions, in order to increase the group's effectiveness. (Schwarz, 1994, p. 4)

Faculty. Refers to "Personnel (military and civilian) who–as determined by the college or school–teach, prepare, or design professional military education (PME) curriculum, or conduct research related to PME" (CJCSI, 2009, p. B-4).

Gender. The term includes gender identity, gender roles, masculinity and femininity, and other social and cultural processes. The term has social and cultural aspects, as well (Blakemore et al., 2009). *Gender* was the variable label in this study.

Leadership Position. Refers to leadership positions associated with positions of authority and responsibility unique to the CGSC. Leadership positions included the most commonly found terms of assistant staff group advisor, staff group advisor, and team leader. *Leadership position* was the variable label in this study.

People of Color. see Race. Person or People of Color was the preferred wording in this study.

Race. In literature, the term *race* was closely tied to racism. The following discussion came from critical race theory and psychology literature. Critical race theory writers often referred to race as a social construction (Banks & Banks, 2009; Dixson & Rousseau, 2006; Solorzano, 1997; Solorzano & Yosso, 2002) "created to differentiate racial groups, and to show the superiority or dominance of one race over another" (Solorzano, 1997, p. 8) and for "discriminatory practices" (Solorzano & Yosso, 2002, p. 236) stemming from perceived biological appearances. Race belongs to the worldview of the individual (Tate, 1997) and is the "Person of Color's lived experience" (Solorzano, 1997). Ladson-Billings and Tate (1995) referred to People of Color as "those persons of African American, Chicano/a, Asian American, and Native American ancestry . . . sometimes used . . . synonymously with minority" (p. 16).

Some writers identified the term *color-lines* and tied the concept back to social construction (Ladson-Billings & Tate, 1995) and racial boundaries (Parker, Deyhle, & Villenas, 1999). Furthermore, multiple authors identified the polarizing effect of racial categories into White and Non-white (Dixson & Rousseau, 2006; Ladson-Billings & Tate, 1995; Parker et al., 1999) that reinforced stereotypes (Ladson-Billings & Tate, 1995), imposed limitations (Solorzano & Yosso, 2002), and provided a platform for allocating privilege and status (Dixson & Rousseau, 2006). Dixson and Rousseau

questioned the usefulness of categorizing race, asking, "How do we decide who fits into which racial classification?" (p. 12).

Psychological genomic literature pointed out the complexity of race (and ethnic) constructs as constantly changing, always varying, and fluid, depending on the physical location in the world (Bonham, Warshauer-Baker, & Collins, 2005). Genomics research had clustered individuals into five groupings: Africans, Caucasians, Pacific Islanders, East Asians, and Native Americans. However, Bonham et al. cautioned that much exploration remained in the area of race and ethnicity. The conflict between the terms "race" and "ethnicity" were beyond the scope of this study.

Participants provided self-identification of their ethnicity or race. Their self-chosen categories were necessary for the purposes of data analysis. Hesitation surrounded the use of these categorizations, however, since interpretation could reinforce stereotypes, polarization of individuals into White and Non-white groups, or otherwise infer, unintentionally, embedded racism within the analysis process. The independent variable label chosen was *Ethnicity/Race*. Although these terms are not interchangeable, because participants provided text responses to the demographic question, they could choose whether they wished to identify with race, ethnicity, or both constructs.

Self-efficacy. Refers to "Beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Also refers to "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" (Bandura, 1986, p. 391).

Small group seminar classrooms. The term refers to a grouping of students that typically did not exceed 16 individuals per classroom.

Social cognitive theory. Pertains to "a view of human functioning that accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes in human adaptation and change" (Pajares, 2002, para. 2).

Staff group advisor (SGA). A faculty member assigned responsibility for the day-to-day execution of the teaching schedule within a staff group (small group seminar). The SGA coached students, advised them regarding academic progress, coordinated staff group activities, ensured students completed course requirements, handled student issues,

and coordinated faculty teaching schedules. In addition, the SGA supported the team leader.

Teacher efficacy. The term refers to "The extent to which a teacher believes he or she has the capacity to affect student performance" (Berman et al., 1977, p. 137); to "Teachers' belief or conviction that they can influence how well students, even those who may be difficult or unmotivated (Guskey & Passaro, 1994, p. 4); to "Teacher belief in their ability to affect student performance" (Dellinger, 2001, p. 11); and to "Teacher belief in their ability to influence valued student outcomes" (Wheatley, 2005, p. 748).

Teacher sense of efficacy. The term refers to "Teachers' situation-specific expectation that they can help students learn . . . [and] consists of two independent dimensions: sense of teaching efficacy and sense of personal teaching efficacy" (Ashton & Webb, 1986, p. 3).

Teacher self-efficacy. The term refers to "Teacher's perceived beliefs in their capabilities to organize and execute courses of action to acquire specific teaching tasks situated in the context of teachers' current teaching situations" (Dellinger, 2001, p. 29). It also refers to a teacher's beliefs about "successfully performing specific teaching tasks in a teacher's current teaching situation" (Dellinger, 2008, p. 753).

Teaching experience. The number of previous teaching experiences or assignments that faculty had prior to their current teaching position at the CGSC. The term *Teaching experience* was used as the variable label in this study.

Team leader. A faculty member assigned responsibility for a team of 12 faculty members who taught four staff groups (seminars) of 16 students each. The team leader managed administrative requirements involving human resources, team teaching schedules, curriculum coordination, student and academic coaching, and implementation of institutional responsibilities

Chapter 1 Summary

Chapter 1 provided an overview about faculty self-efficacy beliefs in higher education classrooms: specifically, faculty beliefs about facilitating small group seminars. Previous self-efficacy research about teaching primarily focused on grades K-12. Research about faculty self-efficacy beliefs about teaching in higher education was

scarce or absent. Discussion in this chapter identified the need to develop a measure of faculty self-efficacy beliefs based on sound understanding of social cognitive and self-efficacy theory.

Chapter 2 provides a review of teacher self-efficacy literature and focuses on pivotal studies that shaped current understanding of the construct, definition of terms, and development of measurement scales. Additionally, the next chapter considers the concepts of self-efficacy, discussion teaching, facilitation, and a motivational classroom environment.

CHAPTER 2 - Review of Literature

Introduction

Theoretical Foundation of the Study

The foundation for this study was Bandura's (1997) social cognitive theory and the theory of self-efficacy, which has been well documented across multiple disciplines (Schunk & Pajares, 2005). Essential to Bandura's social cognitive theory was the concept of triadic reciprocal causation describing an interactive but not necessarily equal relationship among behavior, environment, and personal factors. Personal factors included cognitive and affective elements, of which self-efficacy was a major component.

Focus of the Literature Review

The literature reviewed in this chapter encompassed five areas. The first is an overview about the historical background of social cognitive theory, self-efficacy, and teacher self-efficacy. The second section considers faculty demographic and employment characteristics (independent variables) of gender, age, ethnicity, education level, teaching experience, academic title, and leadership position. The third section provides an overview about facilitating discussion and the fourth section considers discussion teaching. Chapter 2 concludes with a fifth section on motivating learning environments.

Background

This study distinguished between two theories that play a significant role in shaping teacher self-efficacy research. The first strand of research was supported by Rotter's (1966) general expectancy theory of internal versus external locus of control, or in a broader sense, social learning theory (Tschannen-Moran et al., 1998). The second research strand originated from Bandura's (1977, 1997) social cognitive theory and theory of self-efficacy (Figure 2.1).

The majority of literature about teacher self-efficacy beliefs traced the development of the construct to two RAND studies grounded in Rotter's (1966) locus of control. The RAND and subsequent studies claimed locus of control was related to student achievement (Bobbett, 2001; Dellinger, 2001; Friedman & Kass, 2002; Henson, 2001; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001). The RAND studies were significant in that they also led other researchers to develop instruments, based on Rotter's locus of control, to measure teacher efficacy, teacher sense of efficacy, and teacher self-efficacy. Among the most prominent of these studies was a series by Ashton and Webb (1986) introducing the Webb Efficacy Scale to measure teacher sense of efficacy and motivation based on Bronfenbrenner's ecological model (Ashton & Webb, 1986, p. 9). Another pivotal study by Gibson and Dembo (1984) included the development of the Teacher Efficacy Scale (TES) to measure the relationship between teacher efficacy and teacher behaviors. The TES attempted to combine Rotter's locus of control and Bandura's self-efficacy constructs.

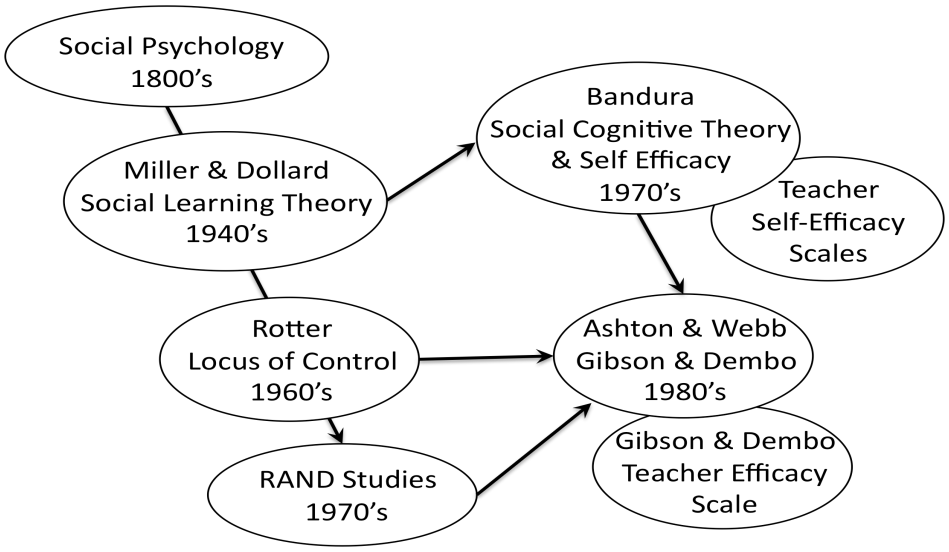

Figure 2.1. Significant teacher efficacy and self-efficacy research.

The following sections provide further details about the key studies identified in Figure 2.1. The explanation following starts with Rotter's locus of control, the RAND studies, and Ashton and Webb's work and concludes with the Gibson and Dembo study.

Generalized Expectancies for Locus of Control

Rotter's (1966) theory about locus of control focused on individual perceptions of reward that were contingent on personal behavior (internal locus) or independent factors (external locus). Rotter hypothesized that the perceived distinction of reward reinforcement played a significant role in learning. Locus of control, based on social learning theory (Dollard & Miller, 1941), postulated that reinforcement following a specified behavior served to strengthen an expectation that future reinforcements would follow in the same pattern of repeated similar behaviors. "However, Rotter's (1966) conceptual scheme is primarily concerned with causal beliefs about action-outcome contingencies rather than with personal efficacy" (Bandura, 1977, p. 19). Eventually, individuals could learn to distinguish whether the reinforcement was due to internal versus external factors. This distinction was important for determining the choice of behaviors in given situations.

The Internal-External Measure Scale (I-E Scale), used to determine the degree of individual internal-external orientation (Rotter, 1966; Dellinger, 2001), was a 29-item, forced-choice test that included six filler items to disguise the purpose of the instrument. The items in the I-E Scale addressed "the subjects' belief about the nature of the world. That is, they are concerned with the subjects' expectations about how reinforcement is controlled" (Rotter, 1966, p. 10). The instrument measures the "relationship *between behavior and outcomes* [emphasis Dellinger's]" (Dellinger, 2001, p. 40). The I-E Scale is a measure of generalized expectations and does not indicate an individual's preference for either internal or external control.

Rotter's locus of control theory became the basis of support for two questions used in a sequence of RAND studies conducted in 1976 and 1977. Literature frequently referred to these questions as RAND Item 1 and RAND Item 2. The studies had a significant influence on several generations of research into teacher self-efficacy beliefs. Both studies contributed to conceptual problems persisting in teacher self-efficacy research literature.

Research and Development Corporation (RAND) Studies

RAND conducted two studies in the mid-1970s that identified teacher efficacy or sense of efficacy as major factors resulting in gains in student achievement and school change processes. This section addresses these studies, along with issues associated with both reports.

In 1976, the Los Angeles Unified School District contracted with RAND to identify the factors that contributed to gains in reading levels of sixth-grade Students of Color. RAND findings identified six significant factors that had contributed to the success of student reading outcomes. The study reported one of these factors as teacher efficacy (Armor et al., 1976).

In addition to the 1976 study, RAND researchers conducted a two-phase study from 1975 to 1977, sponsored by the U.S. government, to determine the effects of federal policy on local school district change processes (Berman et al., 1977). Research findings at the classroom level included a factor titled "teacher sense of efficacy," which was described as a "powerful explanatory variable" in that it had "major positive effects on the percentage of project goals achieved," and "improved student performance" (Berman et al., 1977, p. 73).

Researchers frequently referred to the questions about teacher sense of efficacy in the Armor and Berman studies as RAND Items 1 and 2. The RAND Item 1 stated, "When it comes right down to it, a teacher really can't do much–[because] most of a student's motivation and performance depends on his or her home environment" (Armor et al., 1976, p. 73; Berman et al., 1977, p. 137). In the Berman et al. version of RAND Item 1, the word "because," in brackets, replaced the hyphen in the Armor et al. question. Teachers who indicated a strong agreement with Item 1 had an external orientation, meaning that the environment was an obstacle or barrier to student achievement over which teacher effort could not prevail. External orientation was known as general teaching efficacy (GTE; Tschannen-Moran et al., 1998); numerous researchers, who claimed that it did not measure what the RAND researcher claimed it did, widely contested it (Bandura, 1986; Guskey & Passaro, 1994).

The RAND Item 2 stated, "If I try really hard, I can get through to even the most difficult or unmotivated students" (Armor et al., 1976, p. 73; Berman et al., 1977, p. 137).

Teachers in agreement with this statement indicated a great amount of confidence in their own teaching ability, believing the teacher could accomplish what was necessary for student achievement. An internal orientation about teaching sense of efficacy was annotated as personal teaching effort (PTE) in the RAND studies (Tschannen-Moran et al., 1998). The sum of these scores was teacher efficacy (TE). Teacher efficacy is "A construct that purported to reveal the extent to which a teacher believed that the consequences of teaching–student motivation and learning–were in the hands of the teacher" (Tschannen-Moran et al., 1998, p. 205).

Armor et al. (1976) used a 5-point Likert-type scale for both RAND Items 1 and 2. The scaling for Item 1: 1 = *Strongly Agree* to 5 = *Strongly Disagree,* and RAND Item 2 (scaled in reverse): 5 = *Strongly Agree* to 1 = *Strongly Disagree*. The Berman et al. study (1977) did not indicate the scale for the RAND items and it was impossible to determine, based on other questions in the Berman study, what type of Likert-type scale the researchers used. Dellinger (2001, p. 41) felt the Berman research team used a 7-point Likert-type scale, based on descriptive statistics (M = 9.7380, SD = 1.4756, Max = 12, Min = 5), with the difference between the minimum and maximum as 7.

The Armor et al. (1976) study took place in 20 schools in the Los Angeles Unified School District, from which the researchers gathered data regarding sixth-grade reading levels using the California Test of Basic Skills (CTBS). Teachers (N =81) completed a survey, to include their responses to RAND Items 1 and 2. Results from the Armor et al. study indicated that teacher sense of efficacy affected student reading achievement: teachers with high efficacy had a greater "capacity to produce an effect on the learning of students" while those with less efficacy did not produce as large a change (p. 23). The relationship between sense of efficacy and achievement was reported as an unstandardized regression coefficient $\beta = .31$ at $p < .05$ level of significance.

Berman et al. (1977) completed a multi-year study for the U.S. Department of Education about federally funded innovation programs in 18 public school districts in 1977. The study focused on federal input, project characteristics, and institutional settings as the three overarching factors affecting continuation of innovative practices in schools. Nested under institutional settings were three sub-factors: organizational climate and leadership, school characteristics, and teacher characteristics. Berman et al.

described teacher characteristics of primary importance: "Teachers' sense of efficacy emerged as a powerful explanatory variable. It had major positive effects on the percentage of project goals achieved, improved student performance, teacher change, and continuation of project methods and materials" (Berman, 1977, p. 73).

Berman et al. based their explanation of the effects of teacher sense of efficacy on total student improvement. Dellinger (2001) suggested both the Armor et al. (1976) and Berman et al. (1977) studies had issues. These included

1. Claims of a causal relationship between teacher sense of efficacy and teacher efficacy for improved student performance were based on teacher self-reports after teachers received student test results,

2. No baseline measure of teacher sense of efficacy prior to the start of the change processes/programs,

3. No indication of how researchers combined scores for RAND Items 1 and 2,

4. Scaling descriptions for RAND Items 1 and 2 in the Berman et al. study were not provided, and

5. Both studies ignored Rotter's (1966) emphasis that the locus of control measures were for a generalized belief of internal versus external control of reinforcement and did not indicate an individual preference. (Dellinger, 2001)

Ashton and Webb Studies

Ashton and Webb focused their research efforts on the concept of teacher sense of efficacy and measured the sense of efficacy with two instruments: the Webb Efficacy Scale (WES) and the Ashton and Webb Efficacy Vignettes. According to Dellinger, of all the early teacher efficacy researchers, Ashton and Webb came close to actually measuring Bandura's (1977) self-efficacy construct. "The Ashton Vignettes were designed to more closely represent Bandura's theoretical framework that efficacy beliefs are situation specific" (Dellinger, 2001, p. 60). Ashton and Webb (1986) stated, "Although the Rand Corporation researcher cited Rotter's social learning theory as the basis for the development of the teacher efficacy measure, we turned to Bandura's (1977, 1978, 1981, 1982) conception of the cognitive social learning framework for our study" (p. 8).

Furthermore, Ashton and Webb (1986) acknowledged the need for task situation specificity when measuring teacher sense of efficacy using Bandura's (1977) social learning theory. Dellinger (2001) noted that researchers using the WES and the Ashton Vignettes "missed an opportunity" for "enhancing self-efficacy research" (p. 63). Ashton and Webb found that the RAND items "correlated significantly with the Web Efficacy Scale . . . but not with the Efficacy Vignettes" (p. 148). The WES is an eight-item forced choice instrument using a Likert-type scale. The Ashton Vignettes consisted of 15 situational scenarios. Teachers recorded their effectiveness for resolving the situation after reading each scenario.

Ashton and Webb warned their audience, "The Webb Efficacy [Scale] and [Ashton] Vignette measures have psychometric limitations" (p. 148). They also identified problems with the "internal consistency of the [Webb Efficacy] scale" (p. 148). Ashton and Webb commented, "Although the internal consistency of this measure [Ashton Vignettes] was excellent, it did not correlate significantly with student achievement" (p. 149). Perhaps the latter observation was due to having used Bandura's (1977) social cognitive theory as the basis for the model and instrument rather than Rotter's (1966) social learning theory and RAND Items 1 and 2.

Dellinger (2001) noted another significant issue associated with the WES. Although the earliest research by Ashton and Webb said the construct reflected general expectancy about the relationship of teacher efficacy and student achievement, the 1986 study "define[s] the construct in terms of being situation-specific" (p. 59). Ultimately, "Self-efficacy expectations, or beliefs about ability to perform specific teaching behaviors, are confounded with outcome expectations or beliefs that behaviors will lead to certain outcomes" (Dellinger, 2001, p. 59).

In the decades since the early Ashton and Webb studies of the 1980s, few researchers have used the Webb Efficacy Scale and almost none have used the Ashton Vignettes (Dellinger, 2001). Instead, another research instrument, the Teacher Efficacy Scale developed in 1986, was a popular instrument of choice in much of the self-efficacy research (Dellinger, 2008). The next section discusses the Teacher Efficacy Scale.

Gibson and Dembo Study

Numerous studies provided detailed explanations about the development of the teacher efficacy and self-efficacy constructs and associated measurement scales (Dellinger 2001, 2005, 2008; Henson, 2001; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001; Wheatley, 2005). One of the most influential teacher efficacy measurement instruments has been Gibson and Dembo's (1984) Teacher Efficacy Scale (TES). Others, as well as those noted above, have provided reports about their extensive analysis of the TES, to include validity and measurement issues (Brouwers & Tomic, 2003; Deemer & Minke, 1999; Goddard, Hoy, & Hoy, 2000). This section briefly describes the pivotal role of the TES in teacher efficacy and self-efficacy research.

Gibson and Dembo (1984, p. 569) intended to "develop an instrument to measure teacher efficacy, provide construct validation, support for the variable, and examine the relationship between teacher efficacy and observable teacher behaviors." They used RAND Items 1 and 2 (Armor et al., 1976; Berman et al., 1977), along with Rotter's (1966) locus of control, portions of the Ashton and Web model (1986), and Bandura's (1977) self-efficacy construct as the theoretical foundations for their study. The TES used a 6-point Likert-type scale with 1 = *strongly agree* to 6 = *strongly disagree* for 30 questions. Gibson and Dembo's factor analysis found that the TES consisted of two subscales: personal teaching efficacy (PTE) linked to RAND Item 2 and general teaching efficacy (GTE), linked to RAND Item 1. Additionally, Gibson and Dembo aligned PTE with Bandura's (1977) concept of efficacy expectations and GTE with the concept of outcome expectations. Gibson and Dembo (1984) noted, "Because acceptable reliability coefficients resulted from only 16 of the original 30 items, further research is suggested with a revised scale of 16-20 items" (p. 574).

The TES, in most studies, reflected Gibson and Dembo's suggestion to limit the number of items to 16. Other researchers adopted the TES for research in specific areas, such as the Science Teacher Efficacy Belief Instrument or STEBI (Enochs & Riggs, 1990) and the Mathematics Teacher Efficacy Beliefs Instrument, also referred to as the MTEBI (Enochs, Smith, & Huinker, 2000). Research using the TES or one of its derivatives continues to the present (Dellinger, 2008).

Even though the TES remained popular for measuring teacher efficacy, Brouwers and Tomic (2003), Deemer and Minke (1999), Dellinger (2001, 2005, 2008), and Henson and Chambers (2003) warned researchers about numerous problems with the instrument and what it purported to measure. Dellinger, basing her recent article (2008) on previous research and Messick's (1995) model for establishing validity, identified the following issues.

1. Lack of conceptualization of teacher efficacy or teacher self-efficacy that was firmly grounded in self-efficacy theory;

2. Various and discordant operational definitions of the construct, including confusion with stable self-constructs such as self-esteem, locus of control, self-concept, and outcome expectancy;

3. Confounding of extraneous factors;

4. Lack of consideration of specificity and generality of task behavior;

5. Failure to consider the context or situation specific nature of efficacy beliefs; and

6. Failure to conceptualize, measure, and analyze teacher self-efficacy in terms of the multidimensional task requirements of teaching. (Dellinger, 2008)

The previous sections provided a brief overview about four studies that significantly influenced development of the teacher sense of efficacy and efficacy constructs. These pivotal studies were the two RAND studies (Armor et al. 1976; Berman et al., 1977), Ashton and Webb (1986), and Gibson and Dembo (1984). The most influential of the studies was that of Gibson and Dembo, which resulted in the Teacher Efficacy Scale (TES). Researchers continue to use the TES in their studies, even though Dellinger (2001) identified multiple psychometric and theoretical problems. Continued use of the TES perpetuates flawed studies that have "implications for establishing validity of educational research in general and in its use in policy and decision making contexts" (p. 53). The next section considers how Bandura's social cognitive theory opened another strand of research about individual self-efficacy beliefs, especially in the field of education.

Bandura and Social Cognitive Theory

In 1977, Albert Bandura published an article titled, *Self-efficacy: Toward a Unifying Theory of Behavioral Change,* which indicated self-belief as a key element in describing human behavior. In 1986, Bandura situated self-efficacy within a sociocultural construct in his book titled, *Social Foundations of Thought and Action: A Social Cognitive Theory*. By 1997, Bandura's thoughts about social cognitive theory and self-efficacy matured with the publication of *Self Efficacy: The Exercise of Control,* which suggested human agency as a key element in the description of behavior (Pajares, 1997).

Social cognitive theory is a powerful description of individual behavior holding to an agentic perspective and advancing "a view of human functioning that accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes in human development, adaptation, and behavioral change through a process of triadic reciprocal causation" (Pajares, n.d.). In contrast to theories that emphasize environmental or biological influences but do not account for self-beliefs, social cognitive theory subscribes to the degree of influence the environment, behavior, and personal factors (cognitive, affective, biological) have on each other, depending on the activity and the context in which the activity takes place. Major assumptions of the theory are (a) people are agentic, proactive, capable of self-reflection, and they engage in self-regulation, and (b) people actively contribute to their environment rather than passively stand by and wait for events to happen to them (Bandura, 1977, 1997; Goddard et al., 2000; Maddux, 1995, 1999).

A central tenet of social cognitive theory is human agency. Human agency is an individual's ability to exert some level of control over his or her life (Bandura, 1997; Goddard et al., 2000; Henson, 2001). Human agency consists of behaviors that are intentional, have a purpose, are goal directed, are guided by forethought, are evaluative, and are self-correcting (Bandura, 1977, 1997; Maddux, 1995, 1999). In other words, people "form beliefs about what they can do:" they set goals and "anticipate the likely consequences of prospective actions" (Bandura, 1991, p. 248; Bandura, 2001b). Bandura cautioned that behaviors or actions give rise to outcomes and "how one behaves largely determines the outcomes one experiences," as shown in Figure 2.2 (Bandura, 1997, p. 22;

Dellinger, 2001, p. 49). Researchers who failed to differentiate the terms and concepts depicted in Figure 2.2 created confusion in self-efficacy literature.

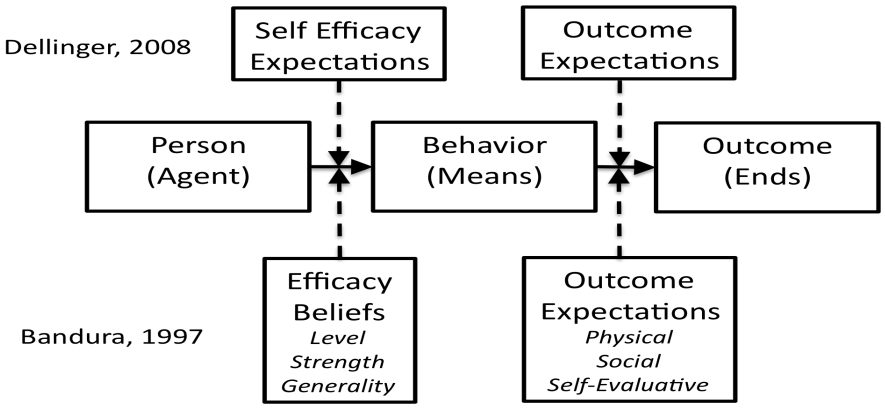

Figure 2.2. Self-efficacy and efficacy according to Dellinger (2008) and Bandura (1997).

Bandura (1997) described the relationship along the bottom half of Figure 2.2 as a causal relationship of efficacy beliefs, behaviors, and outcome expectancies. He stated, "In given domains of functioning, efficacy beliefs vary in level, strength, and generality. The outcomes that flow from a given course of action can take the form of positive or negative physical, social, and self-evaluative effects" (p. 22). However, Bandura mixed up the terms in his extended explanation of the causal relationship depicted in Figure 2.2. For instance, he used the terms "self-efficacy beliefs" and "efficacy beliefs" interchangeably. He also used the terms "performance" and "action" to describe behaviors. Bandura's mix of terms created misunderstandings if researchers confused efficacy and self-efficacy or the terms used to describe behaviors as outcomes.

Even though Bandura changed terminology, he was adamant that efficacy expectations and outcome expectations were distinct concepts. He stated, "Perceived self-efficacy is a judgment of one's ability to organize and execute given types of performances, whereas an outcome expectation is a judgment of the likely consequence such performances will produce" (p. 21). Dellinger (2001) provided clarity by relabeling Bandura's term "efficacy beliefs" to reflect "self-efficacy expectations." Her differentiation clarified the causal relationship and provided the conceptual foundation for her model of teacher self-efficacy.

Self-Efficacy

Self-Efficacy Overview

Self-efficacy is a dynamic personal factor with a mediating role between knowledge and behavior (Bandura, 1997; Dellinger, 2001; Pajares, n.d.; Pajares, 1996). Self-efficacy is a generative capability that organizes an individual's skills for various purposes. "There is a marked difference between possessing subskills and being able to integrate them into appropriate courses of action and to execute them well under difficult circumstances" (Bandura, 1997, p. 37). Consequently, self-efficacy beliefs do not focus on the skills an individual possesses, but what that individual believes he or she can do with those skills through adaptation across numerous situations. Self-efficacy is instrumental in the choice of tasks in which one decides to engage, the amount of effort or motivation one has to execute the task, the strength of resilience when one encounters barriers or difficulties, and the effort to continue after one experiences failure (Bandura, 1997; Dellinger, 2001; Pajares, 1996, 1997).

Self-efficacy provides information about an individual's capabilities regarding specific tasks situated in particular circumstances before the individual engages in executing a course of action or engages in behaviors (Bandura, 1997; Dellinger, 2001; Maddux, 1995, 1997; Pajares, 1997). These beliefs vary in strength, level, and generality depending on the task and the situation. Sources of self-efficacy include enactive mastery experiences, vicarious experiences, social persuasions, and an individual's physiological and emotional states. Self-efficacy beliefs are distinct from outcome expectations. The former focuses on what an individual believes about personal capability to engage in behaviors, while the latter considers the consequences of behavior.

Researchers have often misunderstand self-efficacy as a form or variation of theories about motivation, attribution, locus of control, and human development. These theories and that of self-efficacy are not synonymous. However, self-efficacy does play a role in those theories, according to Pajares (1996), who provided an extensive list of research exploring those relationships. In relation to the other theories, Bandura (1997)

noted self-efficacy as important in motivation, emotions, and actions "based more on what they [individuals] believe than on what is objectively true" (p. 2).

Self-efficacy is supported by a massive amount of research (Bandura, 1997; Stajkovic & Luthans, 1998) in a wide number of domains, to include cognitive functioning, academics and education, health, clinical applications, athletics, organization and business, career planning, and leadership (Bandura, 1997). Additionally, self-efficacy is not the same as other self-belief constructs such as self-esteem, self-concept, and self-motivation, nor should researchers confound it with various expectancy belief constructs such as those associated with performance, competence, ability, and appraisal. Mixing self-efficacy with other self-belief constructs and expectancy constructs has led to confusion about exactly what researchers attempted to measure and what they reported in their findings.

Sources of Self-Efficacy

Within the triadic reciprocal causation model are four sources of information upon which individuals build their self-efficacy beliefs. These sources of self-efficacy information are personal mastery experiences, vicarious experiences, emotional arousal, and social persuasions, as shown in Figure 2.3 (Bandura, 1977, 1997; Dellinger, 2001, 2008; Maddux, 1995, 1999; Pajares, 1996; Wheatley, 2005). These sources vary in their ability to influence self-efficacy beliefs.

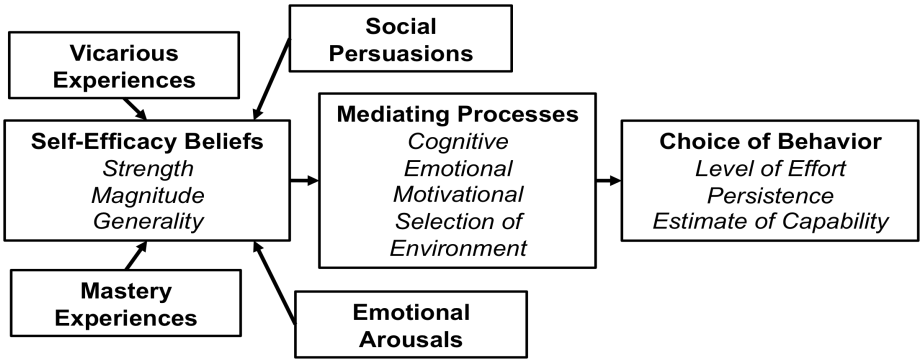

Figure 2.3. Sources of self-efficacy.

Mastery experiences are those in which the individual directly participates and receives authentic evidence of success or failure. "Successes build a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before a sense

of efficacy is firmly established" (Bandura, 1997, p. 80). Mastery experiences signify capability and they are the most influential of all self-efficacy information sources (Bandura, 1997; Dellinger, 2001). "Enactive mastery produces stronger and more generalized efficacy beliefs than do modes of influence relying solely on vicarious experiences, cognitive simulations, or verbal instruction" (Bandura, 1997, p. 80). Bandura clearly stated, however, that researchers should not confuse mastery experiences with programming behavior. Instead, mastery experiences require the individual to develop cognitive, personal, and behavioral tools that allow for "creating and executing effective courses of action" (Bandura, 1997, p. 80).

Building self-efficacy through mastery experiences requires that individuals experience challenges and obstacles during the experience. Those challenges provide opportunities for individuals to learn about the need for resilience. Consequently, failures could be beneficial when building self-efficacy beliefs, but only to a point. Frequent failures could have adverse effects on individual self-efficacy beliefs.

Another mode for obtaining self-efficacy information is through vicarious experiences "mediated through modeled attainments" (Bandura, 1997, p. 86). Modeling provides an opportunity for individuals to appraise their abilities as they watch someone else. These referential social comparisons are the primary means by which people gauge their performance of tasks for which there are no absolute measures (Bandura, 1997).

Emotional or physiological arousals provide somatic indicators of personal efficacy and are commonly found in athletics, but also apply to situations of stress (Bandura, 1997). Somatic indicators provide individuals with information about possible stress, weakness, or other vulnerabilities. High averse arousal could affect an individual's self-efficacy beliefs and lead them to forgo a course of action or give up when encountering an obstacle. Bandura identified physiological arousal such as physical activity that strengthens the heart and muscles as one way to increase stamina that can impact one's perception of self-efficacy.

Social persuasions are "meaningful verbal or non-verbal communication that provides evidence of capability" (Dellinger, 2001, p. 8). Alone, social persuasion is not as effective as other sources of self-efficacy. However, it could contribute to successful behavior if it helps individuals "to initiate a task, attempt new strategies, or try hard to

succeed" (Tschannen-Moran, 1998, p. 212). Social persuasion is only as effective as the recipient believes the sender to be credible, trustworthy, and an expert at the specific task (Bandura, 1997).

Self-Efficacy Mediating Processes

Sources of self-efficacy information are insufficient in and of themselves to bring about a change in self-efficacy beliefs. Self-efficacy beliefs regulate behavior through four mediating processes: cognitive, motivational through goal setting, affective, and selection of environments (Bandura, 1997; Dellinger, 2001, Maddux, 1995). Mediating processes shape behaviors. For instance, some individuals choose to do nothing even though they possess the capability to act, simply because they lack the incentive (Pajares, n.d.). Mediating factors also cause individuals to overestimate or underestimate their capabilities. The consequences are catastrophic when individuals take on tasks beyond their capability or give up prematurely when underestimating their capability (Bandura, 1997; Pajares, n.d.).

Self-efficacy beliefs influence cognition through goal setting, planning to execute the goals, establishing personal standards or rules to measure goal attainment, and determining the level of problem solving ability (Bandura, 1997; Maddux, 1995). With respect to goals, self-efficacy influences the choice of goals, the effort expended to attain the goals, and persistence when encountering obstacles. An individual's perception of personal problem solving ability affects their behaviors. "People who believe strongly in their problem-solving abilities remain highly efficient and highly effective problem solvers . . . Those who doubt their abilities become erratic, inefficient, and ineffective" (Maddux, 1995, p. 13).

Bandura (1997) identified three theories describing cognitive motivational processes that mediate self-efficacy beliefs: causal attributions (attribution theory), outcome expectancies (expectancy-value theory), and cognized goals (goal theory). More discussion about self-efficacy and attribution, expectancy-value, and goal theories appears later in this chapter. "The self-efficacy mechanism of personal agency operates in all of these variant forms of cognitive motivation" (p. 123). When individuals encounter obstacles and fall short of their goal, they become demoralized and lose motivation to continue. They could redouble their efforts to succeed and thereby gain a

positive mastery experience that strengthens self-efficacy, and others could aspire to succeed but "are less certain of their capabilities" (p. 130). Bandura also noted that some individuals become complacent, retain a high degree of self-efficacy, but simply do not bother to push forward to succeed. In the later instance, a lack of motivation appeared to be the cause, though the individual possessed high self-efficacy.

Self-efficacy beliefs influence emotional arousal through control of thoughts and actions. Individuals, when faced with complex or difficult tasks, may experience an increase in anxiety. They may lack the ability to control negative thoughts that create biases about their ability to execute behaviors that could successfully complete the task. Individuals with low self-efficacy beliefs may feel depressed or despondent as they consider the possible behavior choices (Bandura, 1997; Maddux, 1995).

Finally, self-efficacy beliefs affect the selection of environment in which people choose to perform tasks. "By selecting their environment, people can have a hand in what they choose to become" (Bandura, 1997, p. 160). This idea fits nicely into the social cognitive view of human agency, in that individuals are proactive and shape their environment as much as the environment shapes them. People with high self-efficacy tend to select challenging environments, while those with low self-efficacy tend to avoid that type of situation.

The mediating processes discussed in the previous paragraphs play a significant role in the classroom. Faculty with high self-efficacy beliefs may be more willing to engage in difficult discussions because of good problem-solving skills, ability to control negative thoughts, possession of high motivation to succeed, and a proactive nature in creating a learning environment conducive for discussion as a way of teaching.

Self-Efficacy Strength, Magnitude, and Generality

Self-efficacy beliefs vary by strength, magnitude or level, and generality. These dimensions are important for construction of self-efficacy scales and have implications for personal performance or behaviors.

Strength of self-efficacy beliefs refers to the intensity of what one believes about personal ability to perform a task (Dellinger, 2001; Pajares, 1996) and the "resoluteness of a person's convictions that he or she can perform a behavior" (Maddux, 1995, p. 9). The strength of self-efficacy beliefs is dependent upon the specific task and the context in

which an individual performs the task. Bandura (1997) concluded that the stronger "the sense of personal efficacy . . . the greater the perseverance," but "strength of perceived self-efficacy is not necessarily linear" (p. 43). A certain level of self-efficacy is necessary to begin a course of action, but further increases in self-efficacy only result in the same attempt (Bandura, 1997).

There is also a relationship between the magnitude of self-efficacy beliefs and task difficulty. As a task increases in difficulty or complexity, individuals may become threatened. Individual self-efficacy beliefs about one's capability to perform a task could decrease as the task difficulty or complexity increases. At some point, an individual may experience doubt about his or her capability to perform a task and forgo undertaking that task (Bandura, 1997; Dellinger, 2001; Maddux, 1995).

Finally, the generality of self-efficacy beliefs refers to how people judge their self-efficacy beliefs from one task to a related task or into another domain of functioning (Bandura, 1997; Dellinger, 2001). Successful performance of a task increases self-efficacy beliefs so individuals believe they can be successful in completing a similar task. However, depending on the individual, task failure serves to lower self-efficacy beliefs until the individual believes he or she is not capable of performing a similar task or successfully completing similar tasks in another domain of functioning.

Self-Efficacy Expectations and Outcome Expectations

Self-efficacy beliefs are not the same as outcome expectancies. Bandura (1997) stated, "Performance is an accomplishment; an outcome is something that follows from it" (p. 22). The chronology of when self-efficacy expectations and outcome expectations occurs, as depicted in Figure 2.2, is important if researchers want to avoid confusion. Dellinger (2001) identified Rotter's (1966) locus of control as a form of outcome expectancy, whereas self-efficacy expectations are an individual's judgment about the personal ability to organize and execute courses of action. Even though Bandura was adamant that self-efficacy and outcome expectations are not the same, research literature has often confused these constructs. Confusing the concepts creates problems with measuring self-efficacy beliefs (Bandura, 1997; Dellinger, 2001; Maddux, 1995, 1999; Pajares, 1996, 1997; Wheatley, 2005).

Wheatley (2005) and Maddux (1999) indicated Bandura sometimes blurred self-efficacy expectancy and outcome expectancy. Dellinger (2001) claimed Bandura was not consistent with the application of his terminology, thus adding to the confusion of self-efficacy measurement.

Self-Efficacy and Self-Theories

Not only was there confusion about self-efficacy expectations, outcome expectations and the resulting confounding of measurements, but self-efficacy was also sometimes considered an extension of other self-theories such as self-esteem, self-worth, and self-confidence. Bandura said of the self-concepts, "Although they are all self-referential, not all facets are concerned with personal efficacy, and this has been the source of some confusion in the literature" (1997, p. 10). Self-efficacy is a "context-specific assessment of competence to perform a specific task," whereas self-concept is an evaluation of competence, along with the feelings of self-worth related to task performance (Pajares, 1996, p. 551). Essentially, individuals are considering their attitude about themselves (Bandura, 1997). Furthermore, the self-theories are "conceptualized as stable personality traits or characteristics," unlike self-efficacy which is task- and context-specific (Dellinger, 2001, p. 53).

Another difference between self-efficacy and self-theories are the sources of individual judgments. In self-concept constructs, the source is from social comparisons that serve to determine self-worth. In social cognitive theory, sources of self-efficacy focus on individual capabilities for specific tasks in specific contexts (Pajares, 1996). However, Pajares (1997) asserted that even with those distinctions, researchers are not always clear about the constructs. Some have used the terms self-efficacy, self-concept, self-esteem, and other self-constructs interchangeably. Bandura (1997) was quick to point out, "Beliefs about one's capabilities and whether one likes or dislikes oneself" are not related (p. 11).

Self-Efficacy versus Causal Attribution, Outcome Expectancy, and Goal Theories

Self-efficacy is often confused with other social cognitive-based theories because of shared terminology. Maddux (1999) said all social cognitive based theories share some basic principles and processes made up of "a relatively small number of elements,

units, or variables" (p. 21). Those variables create a tremendous amount of confusion due to inconsistencies in measuring and defining them. Three of the variables Bandura (1997) identified and discussed in detail are causal attributions, outcome expectancies, and goal theories.

Bong (1996) noted such theories, especially Weiner's (2005) attribution theory and Elliot and Dweck's (2005) discussion of competence and achievement-goal theories, offered possible explanations as mediators between self-efficacy beliefs and behaviors. Bong clearly indicated the conceptual mess in motivational literature was due to researchers mixing up the concepts: they were "too quick to invent their own sets of labels without carefully examining those found in literature" (p. 151). Self-efficacy is not an extension of attribution, outcome expectancies, and cognized goals, but it "operates in all of these variant forms of cognitive motivation" (Bandura, 1997, p. 123).

Weiner (2005) stated, "Causal dimensions are at the very heart and soul of my attributional approach to motivation" (p. 76). These causal dimensions have properties of locus, stability, and controllability. Bandura (1997) said that the causal aspect of attribution theory involves "retrospective judgments of the causes of one's performance," but it is the causal aspect of attribution theory that lies in conflict with self-efficacy. According to Weiner, the locus of causal attributions is an indication of the level of stability. "There is also a great deal of agreement that . . . aptitude is internal, stable, and uncontrollable, whereas other causes cannot be willfully changed and are regarded as uncontrollable" (p. 76). The latter attributions pertain to luck and chance. The internal or external causal attributions are "presumed to influence their subsequent performance expectancies" (Pajares, 1996, p. 557).

Bandura took an opposite view about stability in that sources of self-efficacy beliefs (e.g., modeling, persuasion, mastery experiences) change how individuals see their abilities. Research findings indicated causal attributions did influence motivation, performance (Pajares, 1996), behaviors, and moods (Maddux, 1995) as mediation processes, in which self-efficacy played a major role.

Expectancy-value theory provides another explanation of how people "motivate themselves and guide their actions anticipatorily by the outcomes they expect to flow from given courses of behavior" (Bandura, 1997, p. 125). Schunk and Pajares (2005)

described expectancy-value theory as "people's judgments about the likelihood of success at a task (expectancy) and their reasons for a task (values)" (p. 90). Thus, for individuals with greater expectations that specific behaviors result in certain outcomes, and who value those outcomes more highly, then " the greater is the motivation to perform that activity" (Bandura, 1997, p. 125).

The premises of expectancy-value theory are based on rational decision-making processes, but Bandura (1997) indicated people lack complete information, and the values that people attach to outcomes are highly subjective. Consequently, the lack of information and the subjectivity of individual values create a predictability problem for expectancy-value theories. Recent additions to expectancy-value theories include self-efficacy type factors intended to buttress the prediction deficiency. However, the idea that someone expects success and places a high value on an outcome does not mean the individual will engage in behaviors to accomplish the task. Some individuals may place a high value on a specific activity but do not pursue it because they doubt they can plan and execute the course of action necessary for success (Schunk & Pajares, 2005). Bandura (1997) and Schunk and Pajares suggested when all other factors are controlled, efforts related to expectancy account for little of the variance in performance.

Bandura (1997) said goal theory was a major component in self-regulation. "Goals operate largely through self-reactive influences rather than regulating motivation and action directly," and perceived self-efficacy is an important self-influence through which goals create motivation (p. 128). Maddux (1999) said that goals are not plans. Plans are the means by which people attain goals. Likewise, Maddux explained that goals are not the same as intentions. Intentions are the commitments an individual makes to achieve a goal. Nor are goals a motive or a need. According to Maddux, a goal is "a more specific and situational outcome that one desires" (p. 29). Both Maddux and Bandura categorized a goal as a cognitive motivation.

Schunk and Pajares (2005) described self-efficacy and goal attainment in academic settings whereby students with high self-efficacy beliefs "embraced more challenging goals" (p. 92). Other researchers found self-efficacy and development of skills were stronger in individuals who set achievable short-term or proximal goals (Bandura, 1997; Schunk & Pajares, 2005).

In summary, self-efficacy is a personal factor varying in strength, level, and generality. Information sources affecting self-efficacy beliefs come from mastery experiences, vicarious experiences, emotional arousals, and social persuasion. Self-efficacy regulates behavior through four mediation processes: cognitive, motivational, affective, and selection of environment. Bandura (1997) cautioned researchers about mixing self-efficacy expectations and outcome expectations. Also, Bandura warned about the problems of mixing self-efficacy and other self-theories. The next section discusses teacher self-efficacy beliefs.

Teacher Self-Efficacy

This section provides an overview of the literature about teacher self-efficacy beliefs by differentiating between teacher efficacy and teacher self-efficacy. Researchers have misunderstood these terms throughout much of the teacher self-efficacy literature; consequently, identifying the differences between the terms is important for understanding the development of the construct. This section considers pivotal research with significant contributions to understanding teacher self-efficacy.

Teacher Efficacy and Teacher Self-Efficacy: Definition of the Constructs

Researchers have referred to teacher efficacy as teacher sense of efficacy in some of the literature (Tschannen-Moran & Woolfolk Hoy, 2001). Whether the term is teacher efficacy, or sense of efficacy, the terms embrace the ideas that originated in the RAND studies regarding a teacher's belief about his or her ability to affect student achievement or performance (Armor et al., 1976; Berman et al., 1977, Dellinger, 2001). Ashton and Webb (1986) defined the terms as "teachers' situation-specific expectation that they can help students learn" (p. 3). The idea of influencing student performance was found in Guskey and Passaro's (1994) and Wheatley's, (2005) definitions of the term. Henson (2001) and Tschannen-Moran and Woolfolk Hoy (2001) defined teacher efficacy as a judgment about capabilities that lead to student learning. In another instance, Ashton and Webb (1986) referred to a teachers' sense of efficacy as "situation-specific expectation that they can help students learn . . . consists of two independent dimensions: sense of teaching efficacy and sense of personal teaching efficacy" (p. 3). In all cases, the term

indicates teacher responsibility or connection to student achievement, performance, or outcomes.

Teachers' self-efficacy refers to their "perceived beliefs in their capabilities to organize and execute courses of action to acquire specific teaching tasks situated in the context of teachers' current teaching situations" (Dellinger, 2001, p. 29). This definition links directly to Bandura's (1997) definition of self-efficacy, which is, "Beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3). Researchers have used teacher efficacy and self-efficacy interchangeably since the original RAND studies in the mid-1970s. Unfortunately, the distinction has frequently been lost in teacher self-efficacy literature, resulting in conceptual, measurement, and definitional problems. Consequently, when researchers have used different terms and definitions to define teacher self-efficacy, or what they believed to be teacher self-efficacy, they ended up "believing they have consensus and understanding when they do not" (Maddux, 1999, p. 24).

Dellinger (2001, 2008) developed a model (Figure 2.4) identifying the relationship between teacher self-efficacy and teacher efficacy beliefs, with the former concerned about teacher capability to engage in situation-specific teaching behaviors and the latter focused on student performance. Dellinger's model shows that teacher self-efficacy beliefs focus on the range of possible behaviors for "successfully performing specific teaching tasks in a teacher's current teaching situation" (2008, p. 753). Teacher efficacy, on the other hand, focuses on "teacher beliefs about their ability to affect student performance" (2001, p. 11).

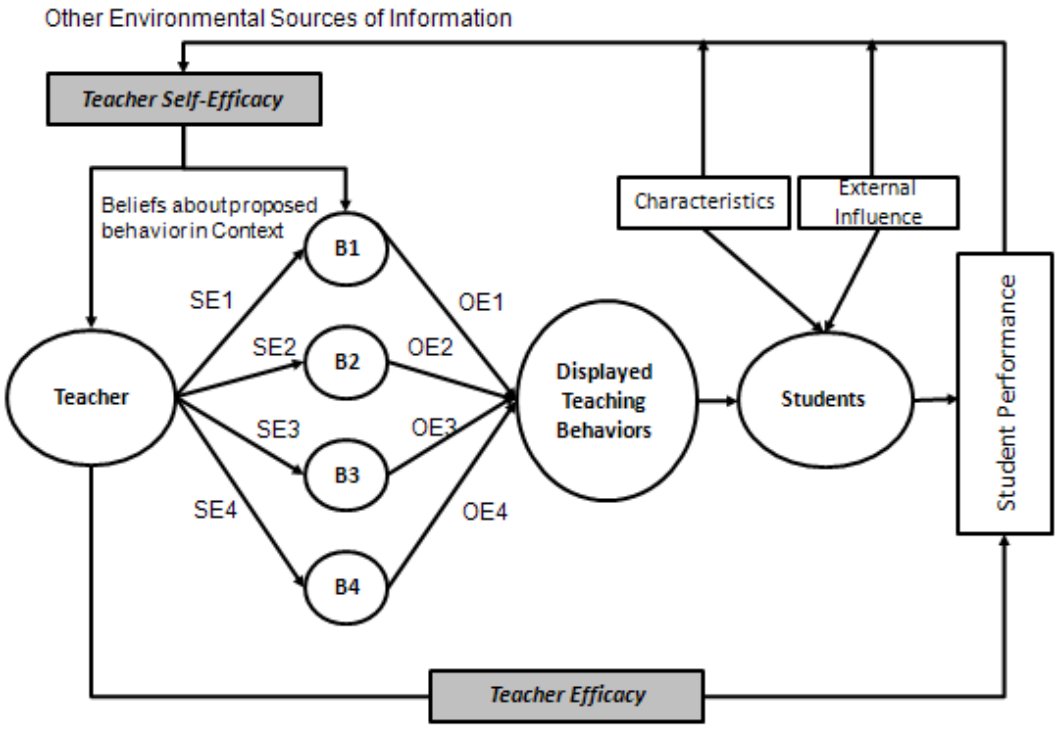

Figure 2.4. Dellinger (2008) model of teacher efficacy and self-efficacy. SE1–SE4 = self-efficacy beliefs about possible behaviors. B1–B4 = various possible behaviors. OE1–OE4 = desired outcome expectancies. Adapted from "Measuring Teachers' Self-Efficacy Beliefs: Development and Use of the TEBS-Self" by A. Dellinger, 2008, *Teaching and Teacher Education, 24***,** p. 753. Copyright 2008 by Elsevier Publishing, Amsterdam, Netherlands.

In this model, teachers have a number of self-efficacy beliefs (SE1–SE4) about the possible behaviors B1–B4 (contextually situated) that can lead to possible outcome expectations (OE1–OE4). The level, strength, and generality of the teacher self-efficacy beliefs (SE1–SE4) affect the judgments the teacher makes about the possible range of behaviors that lead to the desired outcomes. After processing through the range of potential behaviors (B1–B4), the teacher uses one or more of them and exhibits them as displayed teaching behaviors.

In addition to the displayed teaching behavior, numerous other factors affect the students and their achievement. Teachers eventually reconsider the achievement and adjust their self-efficacy beliefs, possible range of behaviors, and anticipated outcome expectations. The cycle repeats over and over, resulting in an increase or decrease to self-efficacy, as well as to the range of possible behaviors, expected outcomes, and the

behaviors demonstrated in the classroom. Should the context change or the task change, teachers have another set of self-efficacy beliefs related to behaviors and outcome expectancies.

Pivotal Teacher Self-Efficacy Studies

Earlier in this chapter, descriptions appeared of the RAND studies, often cited by researchers as the starting point for operationalizing the teacher self-efficacy construct and developing measurement scales. The history of teacher self-efficacy research is confusing because similar sounding terms, such as teacher efficacy, teacher sense of efficacy, and teacher self-efficacy, appear interchangeably. These terms refer to different constructs, and sorting out those differences is not easy; clarity comes slowly as theories and constructs mature (Bobbett, 2001; Dellinger, 2001, 2008; Friedman & Kass, 2002; Goddard et al., 2000; Olivier, 2001; Tschannen-Moran et al., 1998; Tschannen-Moran & Woolfolk Hoy, 2001; Wheatley, 2005).

The next section contains comparison of five teacher self-efficacy scales (see Table 2.1). Comparisons included the instrument question stems, theoretical foundation, context in which the research took place, and focus of the study. Dellinger's (2008) Teacher Efficacy Scale–Self (TEBS-S) short form emerged as the most viable instrument for adaptation to the present study because of the wording of the question stem and the faithfulness to Bandura's (1997) theory of self-efficacy.

Table 2.1 *Teacher Self-Efficacy Instrument Comparison*

Instrument	Teacher Sense of Efficacy Scale (TSES) Tschannen-Moran (2001)	Teacher Efficacy Beliefs Scale–Self (Long Form) TEBS-S Dellinger (2001)	Classroom and School Context Teacher Self-Efficacy Scale (CSC) Friedman& Kass (2002)	College Teaching Self-Efficacy Scale (CTSES) Prieto (2006)	Teacher Efficacy Belief Scale–Self (Short Form) (TEBS-S) Dellinger (2008)
Questions	Long Form, 24 Items; Short Form, 12 Items; Item Stem: 1. To what extent can 2. How well can 3. How much can.	41 Items; Item Stem: The strengths of my personal beliefs in my ability to . . .	33 Items: (19 for the classroom, 14 for the organization). Relies on the TSES. Item Stem: I think/believe/feel/can/have/could	51 Items (44 for confidence in ability/frequency; 7 items about satisfaction, influence, support	31 Items; Item Stem: the strengths of my personal beliefs in my capability to . . .
Theoretical Basis	Rotter Locus of Control (1966) "teacher efficacy"; Bandura Self-Efficacy (1977, 1997) "teacher self-efficacy" are synonymous	Bandura Social Cognitive Theory and Theory of Self-Efficacy	Cherniss (1993) Three dimensions of teacher sense of professional efficacy (task, interpersonal, organization); Bandura (1997) Theory of Self-Efficacy.	Bandura social cognitive theory and theory of self-efficacy	Bandura social cognitive theory and theory of self-efficacy
Context	Grades K-12	Grades K-6	Grades K-12 and school organization	Higher education	Grades K-6
Focus of Study	Teacher performance and student achievement	Teacher judgments about ability to successfully perform specific teaching/learning tasks within classroom.	Teacher performance of tasks and inter-relations at school organization level	Faculty confidence in abilities; frequency of performing tasks; perceptions of satisfaction, preparation, responsibility for student success.	Teacher judgments about ability to successfully perform specific teaching/learning tasks within classroom.

Teacher Sense of Efficacy Scale (TSES)

In 1998, Tschannen-Moran, Woolfolk Hoy, and Hoy published research entitled *Teaching Efficacy: Its Meaning and its Measure,* which highlighted the conceptual problems created by combining two separate theoretical strands that support teacher efficacy and teacher self-efficacy studies. The study highlighted conceptual differences between Rotter's (1966) locus of control and Bandura's (1977, 1997) self-efficacy construct. The TES sought to bring both concepts together in what Dellinger (2001, p. 87) termed the "cyclical model of teacher efficacy" but what Tschannen-Moran et al. viewed as an integrated model that "weaves together both conceptual strands" (Tschannen-Moran et al., 1998, p. 227). The model had problems.

When describing the cyclical model, Dellinger (2001) stated, "It appears . . . that these authors confused behaviors or tasks (means) with outcomes (ends)" (pp. 89-90; also see Figure 2.2). Dellinger went on to note that the definition of means-ends, as described in the Tschannen-Moran et al. cyclical model, was incongruent with how they defined teacher efficacy. Tschannen-Moran et al. (1998) defined teacher efficacy as, "The teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific task in a particular context" (p. 233). This definition corresponded to Bandura's (1997) definition of self-efficacy, which "refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3).

In 2001, Tschannen-Moran and Woolfolk Hoy introduced the TSES, which Dellinger (2008) said had "addressed most of the issues . . . and appears to measure teacher self-efficacy beliefs instead of teacher efficacy (used as synonymous terms)" (p. 75). Apparently, the terms "efficacy" and "self-efficacy" were still a problem, but the direction was set for clarifying the construct and appropriately separating locus of control and self-efficacy constructs.

At first, the TSES appeared to be a good candidate from which to develop an instrument that would reflect the nature of teaching in a higher education context. The instrument was ultimately rejected due to what appeared to be mixed terminology (efficacy and self-efficacy), as well as lack of clarity about how tasks related to specific context.

Teacher Efficacy Beliefs Scale—Self (TEBS-S Long Form)

Dellinger (2001) based her 41-item TEBS-S on the model shown in Figure 2.4. The TEBS-S was one of a series of instruments comprising the teachers' efficacy belief system. The two other instruments in this series measured collective self-efficacy of teacher work groups and total faculty. All instruments underwent similar design processes that included expert panels and pilot studies with factor analysis. Construct validity consisted of a thorough review of other instruments and Bandura's (1977, 1997) theory of self-efficacy. Teacher expert panels established face and content validity. Appropriate analysis of subscale scores established reliability. Cronbach alpha coefficients indicated internal consistency.

The instrument used a 4-point Likert-type scale with 1 = *weak beliefs* to 4 = *very strong beliefs*. The item stem for all questions situated the questions in the teacher's current environment. Questions pertained to specific tasks teachers indicated as relevant for the classroom. The 41-item (Dellinger, 2001) instrument was not used because a shorter, 30-item (Dellinger, 2008) instrument appeared to be better suited for adaptation to a higher education environment. Additionally, Dellinger recommended the shorter instrument because it provided equivalent results in her studies (Dellinger, personal communication, March 30, 2010).

Classroom and School Context Model of Teacher Efficacy (CSC)

In 2002, Friedman and Kass proposed a model and a measure that accounted for a broader teacher context. The foundation of the model was previous literature, including the Tschannen-Moran and Woolfolk Hoy (2001) research for the TSES and other attempts to "broaden the conceptual scope of teacher efficacy measurement by introducing additional areas of teacher functioning at work." The authors "proposed a conceptual model of teacher self-efficacy, named Classroom and School Context Model of Teacher Efficacy or, in short, the CSC model" (Friedman & Kass, 2002, p. 677).

The article did not include a copy of the instrument; however, it consisted of two sections titled Classroom Context and School Context. The first section contained 19 questions and the second had 14 questions with item stems of "I think," "I can," and "I believe." Additionally, Friedman and Kass redefined teacher self-efficacy to support the

enlarged contextual nature of their model and measurement instrument. The authors described teacher self-efficacy:

> Perception of his or her ability to (a) perform required professional tasks and to regulate relations involved in the process of teaching and educating students (classroom efficacy), and (b) perform organizational tasks, become part of the organization and its political and social processes (organizational efficacy). (Friedman & Kass, 2002, p. 684)

The CSC was inappropriate for the current study for two reasons. First, the authors appeared to mix teacher efficacy (related to the classroom and the organization) and self-efficacy concepts. The Friedman and Kass (2002) proposed definition of self-efficacy further confused the understanding of the teacher self-efficacy construct because it mixed terminology. Second, what the questions were intended to measure was not clear, given their general contextual phrasing. Additionally, the question stems were somewhat confusing and seemed to reflect both the teacher efficacy and self-efficacy constructs.

College Teaching Self-Efficacy Scale (CTSES)

Leonor Prieto Navarro, in her book entitled, *Autoeficacia del Professor Universitario: Eficacia Percibida y Practica Docente,* (2005) presented what Bandura called "An instrument with strong psychometric properties that is also faithful to the tenets of social cognitive theory" (p. 14). Unfortunately, although Prieto's CTSES instrument was translated from Spanish into English, her book was not. Without an English translation of the book supporting Prieto's self-efficacy measurement scale, the scale was not a candidate for use in the study. However, Bandura provided some insight about the importance of Prieto's research. He wrote in the introduction to the book, "Her research efforts break theoretical ground and at the same time provide school and college practitioners, both in the United States and overseas, with insights they can use to create structures in which academic motivation and excellence can be enhanced" (p. 15).

The instrument consisted of 44 questions with a 6-point Likert-type scale on the left side measuring confidence in ability and another 6-point Likert-type scale on the right side measuring how frequently the respondent engaged in teaching activities. The instrument, according to Bandura, measured the self-efficacy "beliefs of university professors along basic dimensions of teaching" (Prieto, 2005, p. 15). Once translated,

this instrument and Prieto's model could add considerable insight to faculty self-efficacy research.

Teacher Efficacy Beliefs Scale–Self (TEBS-S Short Form)

The TEBS-S long form contained questions pertaining to teaching math and reading subjects to students in K-12. These questions were not included in the TEBS-S short form. Dellinger extracted these questions without jeopardizing instrument validity or the reliability and consistency of the questions. The TEBS-S short form utilized a 4-point scale with 1 = *weak beliefs* to 4 = *very strong beliefs*.

A change in the 2008 TEBS-S short form from the 2001 TEBS-S long form was the wording in the item stem. Originally, in the long form, Dellinger (2001) used the word "ability" in the item stem, but in the short form, replaced "ability" with "capability." Capability provides a closer fit with Bandura's (1977, 1997) theory of self-efficacy.

The TEBS-S was "designed to assess teachers' *self-efficacy beliefs* [italics original] about tasks that are associated with correlates of effective teaching and learning, all within the context of their own classrooms" (Dellinger, 2008, p. 756). Dellinger described the four-phased development process of the TEBS-S used to ensure the instruments results were valid and reliable.

Phase one of TEBS-S involved development of the question item stem. Historically, self-efficacy studies used a number of item stem variants such as "I am" and "I can." Dellinger added a "non-traditional item stem (*My belief in my ability to . . . . is . . .*)" and found that the traditional item stems were highly correlated, "whereas responses from the BELIEF [capitalization original] item stem were not as strongly correlated with the traditional item stem responses" (2008, p. 756). Dellinger and associates decided questions in the TEBS-S would contain the "belief" wording because it was not strongly correlated to the wording in traditional item stems and was "consistent with the language of self-efficacy theory" (p. 756).

In phase two, Dellinger (2008) identified seven teaching domains of a learner-centered classroom using observation and the Professional Assessment and Comprehensive Evaluation System (PACES). "The various domains of functioning included (a) long-range planning, (b) managing the learning environment, (c) classroom

climate, (d) enhancing and enabling learning, (e) enabling thinking, (f) classroom-based assessment of student learning, and (g) professional responsibilities" (Dellinger, 2008, p. 756). After developing 51 items for the survey, an expert panel of 45 experienced professional educators identified 30 items for retention in phase three of the FEBS-S development. Dellinger (2008) used a 4-point scale with 1 = *very weak beliefs* to 4 = *very strong beliefs* for each of the 30 items.

Phase four involved use of the TEBS-S in three separate studies. The researchers assessed the TEBS-S using "principal components analysis and reliability analysis" (Dellinger, 2008, p. 757). The three studies involved 2,373 elementary school teachers. The results of the three studies showed, "Approximately 60% of the variation in the scores on the TEBS-Self was explained by the solutions selected by the three authors" (p. 758). The studies identified the teaching factors for retention. Regarding reliability, Dellinger wrote, "Reliability studies for each of the subscales in the three studies were satisfactory for all of the named components" (p. 761). Finally, the research team found the subscales in the TEBS-S "had little relationship with any of the RAND efficacy measures ($.16 < r < .29$)," which further substantiated, "The RAND items do not assess teachers' self-efficacy beliefs" (p. 761). Based on the results of the three studies, Dellinger concluded, "The TEBS-Self, in its current format, can assess the self-efficacy beliefs of teachers as they work in their classrooms" (p. 761).

The previous sections provided an overview of Bandura's (1977, 1997) social cognitive theory and theory of self-efficacy. Discussion highlighted development of the teacher self-efficacy construct and differentiated between similar sounding terms that are frequently misunderstood and, when overlooked, lead to flawed research. The previous sections included important research and self-efficacy measurement scales that influenced the development of the teacher self-efficacy construct. Specifically, the section described five teacher self-efficacy scales. The next section describes the independent variables used in the current study.

Characteristics of Higher Education Faculty

This section presents the seven characteristics that served as independent variables in this study. Three independent variables were personal (gender, age,

ethnicity/race) and four related to employment (education level, teaching experience, academic title, and leadership position). Bandura (2001b) wrote,

> Sociocultural factors operate through psychological mechanisms of the self system to produce behavioral effects . . . Economic conditions, socioeconomic status, and educational and family structures affect behavior largely through their impact on people's aspirations, sense of efficacy, personal standards, affective states, and other self-regulatory influences. (p. 15)

Social and cultural factors affected judgments about performance as much as about objective qualities. Although individuals may have high self-efficacy beliefs about their capability to perform complex tasks, they may receive low scores because of social or cultural factors that affect those who score the tasks. Bandura (1997) wrote, "Even extraneous factors such as ethnic, racial, and gender status can sway performance judgments" (p. 65).

The feedback individuals receive about performance may be subject to social, cultural, and other extraneous factors. Information generated about performance can affect the cognitive, emotional, motivational, self-appraisal processes and behaviors of that individual (Bandura, 1997). Individuals may believe that certain behaviors will produce certain outcomes, but they may harbor misgivings or doubts about their capability to perform those behaviors as a result of the cultural and social factors that affect their self-efficacy beliefs. Consequently, accounting for demographic characteristics when studying self-efficacy beliefs is important to identify how extraneous factors may or may not affect those beliefs.

Personal Demographics

Ramirez-Garcia (2005) described the typical faculty member in higher education institutions as male, Caucasian, close to 50 years old, holding a doctorate degree, and having held consecutively higher education positions resulting in full-time, tenured employment. They "are inclined toward teaching rather than research" (Ramirez-Garcia, 2005, p. 43). Within CGSC, the number of faculty members who fit this description was even more pronounced. The CGSC Quality Assurance Office (QAO) reported in September 2009 that approximately 90% of the faculty members identified themselves as males. Of the 354 faculty who voluntarily self-reported their ethnic background, 22

indicated an ethnic preference, 246 identified themselves as Caucasian, and another 86 did not indicate a preference. The dominance of Caucasian male faculty members may affect the use of discussion as a teaching method in the CGSC classrooms. This section provides a description of the faculty demographics (gender, age, and ethnicity) associated with faculty in higher education institutions and the CGSC.

Gender

Gender is an "important explanatory variable in models of career choice and development" (Vasil, 1996, p. 104). Perceptions of self-efficacy affects the kinds of choices faculty make about their careers (Bandura, 1997). In particular, female academicians who face discriminatory practices in higher education have the most to gain, or lose, when it comes to how they view their abilities and careers. According to Vasil (1996),

> Self-efficacy theory was considered relevant to understanding women's career development because weak self-efficacy perceptions can be viewed as internal barriers to women's career choices and advancement, whereas strong self-efficacy beliefs are necessary to overcome external barriers such as discrimination to woman's career development. (p. 104)

Gender disparity in higher education persists with debilitating consequences for the individual and the institution. Social expectations, to include the academic landscape, shape male and female self-efficacy beliefs, especially in occupational decisions and beliefs about capabilities (Bandura, 1995; Bandura et al., 2001). Women remain a marginalized minority within higher education faculty (Lomperis, 1990). Institutions that marginalize female faculty waste talent. Ultimately, they deprive themselves of opportunities to see problems from differing viewpoints, to prepare students for a dynamically changing society, and to provide role models for younger women (Ali, 2007; Bandura, 1997). However, Berberet (2008) disagreed with this gloomy assessment when he stated, "Major strides in gender equity, salary, tenure, and promotion parity" have resulted in similar levels of faculty satisfaction, as expressed by male faculty (p. 6).

Institutional cultures are prone to creating barriers such as sexual harassment (Alger, 1998), gender bias, hidden workloads, and inadequate mentoring or networks that affect progression of women faculty (Bain & Cummings, 2000; Bystydzienski, 2004; Marschke, Laursen, Nielsen, & Rankin, 2007). More women teach in lower-tier colleges

that have fewer resources, lower quality students, less selectivity, and lower expectations (Kulis, Sicotte, & Collins, 2002). Female faculty base career decisions on family needs in disproportionate numbers to their male counterparts (Corley, 2005; Kulis et al., 2002).

Women are underrepresented in most academic institutions (August, 2006; Bellas, 1993; Lomperis, 1990; Nettles, Perna, & Bradburn, 2000). In 2004, only 38% of the faculty members in higher education were women, with the greatest disparity of female representation at research universities (Wilson, 2004). Although greater numbers of women receive post-graduate degrees, they continue to lag male counterparts in career success. Many women end up in what academic institutions consider nurturing roles or the soft academic departments. The result is that women receive less pay, have slower advancement, face lower tenure rates, and have fewer opportunities to compete for prized research roles (August, 2006; Bentley & Blackburn, 1992; Clark & Corcoran, 1986). Affirmative action and associated programs meant to "Increase the representation of women and minorities in the faculty ranks have resulted in an environment in academia that isolates rather than incorporates women and minorities in the academic culture" (Aquirre, 2000, p. 2).

Women faculty receive lower pay and hold less secure or prestigious positions (Bellas, 1997; Lomperis, 1990; Olsen, Maple, & Stage, 1995; Park, 1996; Rosser, 2004). Female faculty tend to have higher teaching and service loads compared to males, and they have lower publication production (Bain & Cummings, 2000; Bellas, 1993; Fogg, 2003; Nettles et al., 2000; Olsen et al., 1995). Additionally, academic institutions tend to place less emphasis on teaching, whereas research and publication receive greater credit for tenure purposes (Bain & Cummings, 2000). Consequently, women with higher teaching loads and less opportunity for research not only face discriminatory practices regarding their pay, but also suffer when competing for tenure. Women with low self-efficacy beliefs in this area of competence are less likely to enjoy successful careers than are their male counterparts (Vasil, 1996, p. 104; Bandura, 1997).

The problem of how female faculty members view their abilities extends to single females, who are often ostracized by the academic culture (Wilson, 2004). Female faculty members' choice of pedagogy is student-centric when compared to males. Ali (2007) wrote,

> Female faculty members do not use lectures as their primary instructional method. They use active and/or collaborative teaching more than their counterparts (Fairweather, 2002). They are more likely to use class discussion, cooperative learning, experiential learning, fieldwork, group projects, and student initiated methods of instruction in their classrooms. (p. 40)

This distinction was important for the current study. Research indicated female faculty members demonstrated a greater willingness to use discussion as a teaching method, unlike their male colleagues. Gravitation of women faculty to the discussion-based pedagogy may be the result of gender socialization and may affect how women develop their careers, occupation skills, and behaviors. Betz and Hackett (1986) found that women had lower self-efficacy beliefs for non-traditional occupations when compared to males, who had higher self-efficacy beliefs for both traditional and non-traditional occupations. This distinction may explain why women educators are more inclined to engage in discussion-based pedagogy, in contrast to men, who seem to shy away from such teaching methods.

Females comprised about 3% of the faculty at the CGSC. The small number of female faculty members may affect female graduate students' perceptions of their capabilities (those participating in the Masters of Military Arts and Sciences program), as well as mentoring and role model opportunities. Reduced presence among the students could affect classroom environment, especially the type conducive for generating meaningful discussion.

Age

Americans have enjoyed a significant increase in life expectancy since the beginning of the 20th century. Those workers age 50 and older comprise the fastest growing segment of the American workforce (Reed, Doty, & May, 2005). Many academic institutions have experienced an increase in the number of older adults on faculty (Berberet, 2008). The 2001 Higher Education Research Institute report found the number of faculty age 55 and older had increased from 24% in 1989 to 36% of the total faculty population by 2001 (Lindholm, Astin, Sax, & Korn , 2002). As more of the older faculty choose to remain in their careers past the traditional retirement age, the hallways of educational institutions are filled with multiple generations of faculty and students. Common stereotypes and prejudices against older faculty remain in place within

academic institutions. Older faculty are seen as incapable of change, while holding onto old beliefs and concepts. Administrators view them as unproductive, lacking innovation, no longer at their scholarly peak, and out of touch with their discipline (Lindholm et al., 2002).

According to Kowalski, Dalley, and Weigand (2006), little evidence supports these perceptions of older faculty, who some believe can continue to teach and perform academic duties beyond traditional retirement age. A study sponsored by TIAA-CREF (as cited by Berberet, 2008) reported that 1,949 faculty from three major research universities described themselves as highly productive, hardworking, satisfied with their profession, and able to provide additional contributions to the institution by mentoring younger faculty members.

On the other hand, another study by Berberet (2008) of 1,330 younger faculty members (five or fewer years in teaching) reported similar sentiments to those expressed by older faculty. However, unlike older colleagues, the new faculty felt less prepared for the demands of academia and felt pressured to choose between families and work, even though younger faculty worked fewer hours. Choices about family commitments over career aspirations affected new female faculty more than males. The growing number of older faculty, the mixture of multiple generations in academic institutions, differing sets of values about career choices, and the stubborn presence of stereotypes ought to energize institutions to re-evaluate their attitudes about how faculty view their capabilities in the workplace (Reed et al., 2005).

Reed et al. (2005) pointed out, "Scant research exists in management literature addressing the relationship between age and self-efficacy" (p. 212). Studies in gerontology provide some insight about the importance of age as a factor in self-efficacy beliefs. Seeman, Unger, McAvay, and Mendes (1999), using longitudinal data from the 1993 MacArthur Research Network on Successful Aging Community Study, observed that older individuals with lower self-efficacy beliefs were more apt to curtail activities, put forth less effort, and display less perseverance than those older individuals with higher self-efficacy beliefs. These patterns of behavior led to fewer examples of task success, which decreased the willingness to try the task. Eventually, older individuals with lower self-efficacy perceived themselves as unable to perform activity tasks,

creating their self-reported functional disability. The implications from the study could suggest the effect of aging on the faculty population was the degree of their willingness to attempt or persist in new teaching methodologies, such as facilitating discussion in small group seminar settings.

Approximately 80% of the faculty members at the CGSC were retired senior officers who had invested at least 20 years in their military careers. These retired officers were approximately 15 years or more senior to the student population. More importantly, however, was the institutional emphasis on subject matter expertise. Officers may have been familiar with the latest in technology or military reform, but they lacked *regreening*. This term referred to recent field or deployment experience that helped to sharpen subject matter expertise or assist faculty with understanding current application of doctrinal concepts.

Ageism issues in higher education include stereotypes about older faculty losing relevance and failing to keep abreast of innovation within their subject areas. These issues might have increased in significance for faculty at the CGSC who may have had fewer opportunities to acquire experience in the field. Recent field duty was essential for credibility in the military higher education classroom. As faculty at the CGSC aged, perceptions of decreased relevance could have affected knowledge construction in a collaborative, discussion-based seminar environment.

Ethnicity/Race

The definitions of race and ethnicity in Chapter 1 provided background description for the use of the variables in this study. This section discusses how race and ethnicity related to the self-efficacy construct. Bandura (1997) commented, "Unlike the extensive research on gender differences in perceived occupational efficacy . . . research on minorities has been comparatively sparse" (p. 436). According to psychosocial theory, race and ethnicity shape value systems and subsequently behaviors through customs, social practices, and social relationships. These values and behaviors affect career, occupation, and education choices (Bandura, 1997).

The degree of ethnic identity is not the same for all individuals; some individuals have high affiliation to an ethnic group while others may not. Value systems, behaviors, and the individual's degree of identification with an ethnic group affects self-efficacy

beliefs and choices about task or occupation engagement, the effort put forth to complete courses of action, and persistence when encountering barriers. Self-efficacy beliefs about the capability to engage in task-specific behaviors eventually emerge in workplace performance.

Two decades of research confirmed a constant relationship between self-efficacy and workplace performance (McCormick, Tanguma, & Lopez-Fremont, 2002) and between self-efficacy and career development (Clark-Anderson, 2004). Other research over the past 30 years has provided mixed results about the relationship of race/ethnicity to self-efficacy beliefs. For instance, some empirical research supported the idea that minorities have lower self-efficacy than Whites (Tashakkori & Thompson, 1991). Other studies among business managers indicated minorities have higher self-efficacy beliefs than Whites (Cianni & Romberger, 1995). Finally, unlike McCormick et al. (2002), other researchers found little negative correlation between self-efficacy beliefs and success of Women of Color in academic settings (Thomas, Love, Roan-Belle, Tyler, Brown, & Garriott, 2009).

Although researchers disagreed about the influence of ethnicity/race on self-efficacy beliefs, several researchers maintained that minorities face a glass ceiling beyond which they do not advance (Mathis & Jackson, 2000). Stereotypes and typecasting into certain jobs may stagnate self-efficacy beliefs (Einhart, 2001). Clark-Anderson (2004) suggested, "African American and other minorities, however, are confronted with barriers of discrimination and biases throughout their lives that may determine outcomes independent of their behavior that negatively affect their self-efficacy" (p. 6).

Such discriminatory barriers influence the choices minorities make about their careers and work performance (Dickens & Dickens, 1991). Racial bias and workplace discrimination have become significant stressors affecting self-efficacy judgments (Essed & Greene, 1991; Harrell, Hall, & James, 2003). Phinney and Haas (2003) elaborated further, suggesting the effects of workplace stress resulting from discrimination and stereotyping limited the kinds of social support systems that fostered positive self-efficacy beliefs. Destabilized self-efficacy resulted in "unconstructive outcomes" (Phinney & Haas, 2003, p. 25) and "inadequate career planning, education development, and equitable opportunities in leadership promotion" (Morrison, 1995).

The section about gender has already identified the potential problems associated with underrepresentation of females within the CGSC faculty. The same types of issues arise with underrepresentation of Faculty of Color. Underrepresented Faculty of Color may affect mentoring and role modeling for Students of Color, and can affect the perspectives of how topics are discussed within the classroom seminar settings.

Employment Demographics

Education Level/Degree

Previous discussion about faculty age, gender, and race/ethnicity indicated these variables play an important role in shaping personal perceptions of self-efficacy. The degree of self-efficacy a person has affects his or her education decisions, such as pursuit of an academic major and selection of career opportunities. The level of education as well as the field of concentration affects post-graduate employment opportunities and social connections. These connections, in turn, link "to one's ability to generate funding from grants, endowments, research projects or other philanthropic means" (Acebo, 2008, p. 22). Consequently, individuals most likely to profit by earning a doctoral degree from a prestigious university have good social connections, giving them the wherewithal to develop career opportunities, bring resources to the institution, and attain tenure. In much the same way that industry considers education a requirement for admittance into executive positions, academia also considers faculty members' education level to be a "pre-requisite for most job positions" (Acebo, 2008, p. 22).

Literature has suggested institutional culture and personal experiences shape a person's perception of his or her capability to carry out successful education strategies leading to advancement within society and academic institutions (Vasquez-Colina, 2005). Individuals with low self-efficacy may not successfully navigate through the demands of higher education, and thus not earn the degree necessary for successful careers in academia. On the other hand, those with high self-efficacy seem to excel. When they encounter barriers, they are much more likely to persist in overcoming them. Individuals with higher self-efficacy are more likely to show greater resilience when recovering from failure. That type of capacity is important when considering the rigors of obtaining post-baccalaureate degrees.

Having an advanced degree does not necessarily mean individuals can expect to secure tenure or higher-level academic positions. For instance, even though greater numbers of minorities and females are obtaining post-baccalaureate degrees, "the same trend does not necessarily transfer over to business and academic contexts" (Acebo, 2008, p. 22; National Center for Education Statistics [NCES], 2008). Recent studies have shown that women and minorities with advanced degrees wind up in community colleges or lower-tier universities. Such development experiences limit opportunities to advance into higher paid positions at top-tier research institutions. As universities reduce tenured positions, power centralizes among the more senior White male faculty and administrators. Literature suggested tenured faculty were little more than overworked curriculum developers, and the material they wrote was "implemented by a subordinated cadre of cheap teachers" (Bosquet, Carmody, Grafton, & Hermanowicz, 2009). These faculty members, regardless of tenure, may not have the same dedication to the teaching profession (Ramirez-Garcia, 2005).

Most faculty members at the CGSC were in their second career, since many had completed 20 or more years as senior military officers and subsequently retired. If they completed a doctorate level degree, they had minimal expectations that their pay would increase or that they would move into leadership positions. At CGSC, academic titles had little relationship to the level of education and, at least for the assistant professor title, were merely honorific.

Teaching Experience

In much the same way that self-efficacy beliefs affect the career decisions and pursuit of education goals, they also affect the ways in which individuals select or seek out employment opportunities (Bandura, 1997; Vasquez-Colina, 2005). Individuals who are "confident of their leadership capabilities will select higher goals and deploy their skills and efforts more effectively than those beset by self-doubt" (Acebo, 2008). Professional connections and networks open doors not available to females, minorities, or those without degrees from the more prestigious institutions (Bandura, 1997). Bandura (1997) noted that comparative studies indicated Students of Color "generally have low sense of efficacy for scientific and technological careers requiring more quantitative

skills" (p. 437); thus, they have insufficient preparation for the rigors of higher-level degrees and subsequent teaching experiences that lead to successful careers in academia.

Higher education is moving away from tenured positions and tenure tracks toward contingent faculty who teach for short periods without lucrative salary and benefits packages. This trend further restricts teaching experience that can lead to secure positions in education institutions (Leslie, 2007). Currently, part-time faculty constitute 65% of the total higher education faculty population, and growth of non-tenure, contingent faculty positions will continue as long as education institutions face increased budget problems (American Association of State Colleges and Universities, 2006).

Teaching experience, as it related to the faculty at the CGSC, played a lesser role in comparison to civilian institutions. Almost 64% of the faculty at the CGSC had 10 years or less of teaching experience. Military faculty assigned to CGSC often arrived with minimal teaching experience and quickly found themselves in the classroom after attending a series of faculty development courses.

Academic Title

Preceding sections identified the possible ways in which gender, race/ethnicity, and age can affect self-efficacy beliefs of individuals within the workplace. Bandura's social cognitive theory considered how socio-cultural factors influenced individual perceptions about their capability to engage in task specific behaviors. Women, People of Color, and those in a lower socio-economic status may limit their career decisions. They may lose opportunities to pursue educational goals, choose occupations, and build networks that foster professional growth. Additionally, they may have limited aspirations or motivation because of their self-efficacy beliefs.

Individual self-efficacy beliefs affect the types of tasks individuals pursue. Those with low self-efficacy tend to avoid challenging positions or tasks that could help them gain promotion or advance their careers. Individuals with higher self-efficacy beliefs have positive role identities that allow them to take on challenges at work. Often, these individuals have developed positive socio-cultural networks, planned their education to support successful careers, experienced success, and faced fewer barriers within their respective institutions.

In 1981, Betz and Hackett were the first researchers to apply social cognitive theory, especially the area of self-efficacy, to career behavior (Landino, 1985). Subsequent occupational self-efficacy research branched out into areas such as career choice, adjustment, and development (Rawa, 1995; Lent, Brown, & Hackett, 2001). Numerous occupational self-efficacy studies addressed workplace identity, work title, status, and prestige. Within academe, Oshagbemi's (1997) research about the relationship between academic rank and job satisfaction among United Kingdom higher education institutions found that as academic title increased, so did professional satisfaction. "Full professors displayed higher levels of productivity and satisfaction than associate or assistant professors. The evidence from the literature seems to suggest, therefore, that rank is a reliable predictor of job satisfaction" (p. 513). Individuals developed a sense of status or prestige when they were associated with an organization or firm held in high esteem by outsiders, and they developed respect when held in high regard by coworkers (Donnay & Borgen, 1999).

Institution socialization also fosters low sense of self-efficacy through barriers that prevent women and People of Color from achieving high-level positions. Already noted, females and Faculty of Color tend to congregate in lower-paying positions, join institutions that are not top tier, gain tenure at slower rates than males, and gravitate to soft science fields. Consequently, more women, as a percentage, had lower titles such as instructor or assistant professor. They were more likely to be in categories such as adjuncts or contracted faculty versus full-time tenure tracks. Within CGSC, the lower number of female faculty and Faculty of Color translated into a similar underrepresentation among the associate professor and professor ranks in the college.

Leadership Position

Social cognitive theory provides an explanatory framework for human functioning across a variety of domains. Examples of social cognitive and self-efficacy theory application to leadership include cognitive and causal reasoning processes (McCormick & Martinko, 2004), leader motivation and organizational change (Fullan, 2007; Paglis & Green, 2002), goal selection (McCormick, 2001), performance outcomes (Prussia, Anderson, & Manz, 1998), self-limiting behaviors (Dickerson & Taylor, 2000), and decision-making in organizations (Bandura, 1988).

Throughout self-efficacy literature, researchers have consistently found that individuals with high self-efficacy beliefs are more willing to undertake challenging tasks that result in recognition within their respective organizations, while those with low self-efficacy beliefs either avoid demanding tasks or do not persist through to completion (Bandura, 1997; Betz & Hackett, 1981). Successful leadership, according to McCormick and Martinko (2004), requires that individuals obtain and use the appropriate skills to carry out leadership roles. Individuals must know how to be leaders in order to lead and take risks. Self-efficacy beliefs play an important role as mediators to actualize appropriate leadership behaviors (Eyler, 2009). Self-efficacy influences leader attitudes toward their jobs (Saks, 1995), job performance (Stajkovic & Luthans, 1998), and capacity for change (Fullan, 2007). Leader self-efficacy also affects task engagement, decision-making, risk taking (Bandura, 1997; Bandura & Jourden, 1991; Wood, Bandura, & Bailey, 1990), flexibility (Eyler, 2009), and goal setting behaviors (Bandura, 1997).

Within the current study, leadership position referred to faculty administrative and classroom management responsibilities, such as staff group advisor (SGA) to the students or as a teaching team leader. The latter position required faculty capability to manage the performance evaluation process for 12 subordinate faculty members, overall planning for teaching and staffing of four seminar classrooms consisting of approximately 64 students, and planning of curriculum delivery throughout the academic year.

U.S. Army Command and General Staff College

Description of the Institution

The U.S. Army Command and General Staff College is an accredited, graduate degree granting institution that provides a 10-month long professional development course for mid-career military officers. The North Central Association of Colleges and Schools accredits the CGSC. Additional accreditation within the Department of Defense allows the CGSC to annotate student records for completing joint service education requirements. The U.S. Army Training and Doctrine Command (TRADOC) certifies on an annual basis that the CGSC meets training and education requirements.

The CGSC has four separate schools that focus on unique aspects of Army professional development, as shown in Figure 2.5. These schools are (a) Command and

General Staff School (CGSS), which has the primary responsibility to educate mid-career U.S. Army officers, sister service officers, international officers from over 80 countries, and leaders from interagency and joint command organizations; (b) School for Advanced Military Studies (SAMS); (c) School for Command Preparation (SCP); and (d) Department of Distance Education (DDE), which is located under CGSS. Although the U.S. Army Command and General Staff College and the subsidiary Command and General Staff School seem to be interchangeable terms, they are distinct. This study focused on the latter, however, throughout the Army, the term CGSC commonly represented both the overall institution as well as the school. This study will retain that practice unless the distinction between CGSC and CGSS is necessary for purposes of clarity.

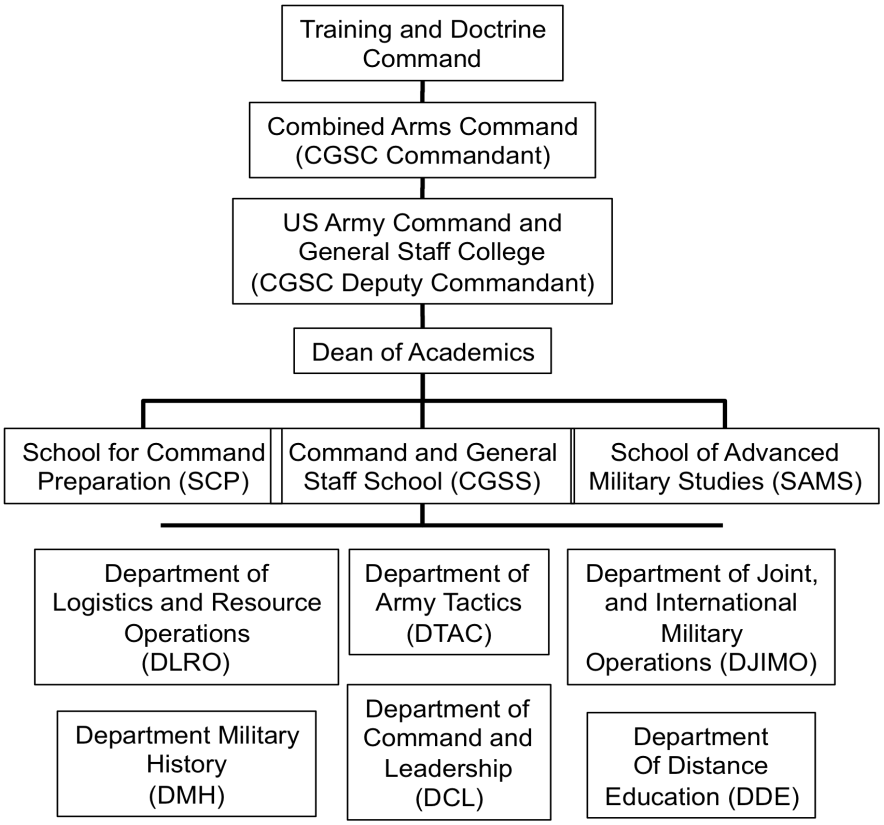

Figure 2.5. U.S. Army Command and General Staff College organization.

Student Body

CGSS Main Campus–Fort Leavenworth, Kansas

The total student body at the main campus had approximately 1,400 students. The students started their 10-month course in August (1,100 students), with another group in February (300 students). These students were divided into seminar classrooms, or as the CGSS called them, staff groups. Each seminar or staff group had 16 students, representing a combination from the categories shown below. The staff groups reflected diversity. It is not appropriate to assume that all officers had equivalent experiences, backgrounds, cultures, or educations. The seminar diversity presented a challenge for creating open, democratic, and culturally sensitive classrooms in which student-centered, experiential, discussion learning took place. The seminar student representation included a combination of the following:

- One international officer,
- One Air Force officer,
- One Sea Service officer (Navy or Marine Corps),
- One female officer,
- One minority officer,
- One U.S. Army Reserve or Army National Guard officer,
- Six combat arms officers,
- Two combat support officers,
- Two combat service support officers, and
- One special branch officer.

CGSS Satellite Campuses

The structure of the satellite campuses (Fort Belvoir, Fort Lee, Fort Gordon) was the same as the resident campus at Fort Leavenworth, although the satellite campuses had no international officers. Under normal circumstances, sister services (Navy, Air Force, Marine Corps, and Coast Guard) did not send officers to the satellite campuses. Seminars consisted of 16 students. A new satellite campus location opened at Redstone Arsenal in Huntsville, Alabama, in February 2010. This study did not include the Huntsville satellite campus location.

Education and Teaching Philosophy

If the United States wishes to remain an international leader and retain economic competitiveness in an increasingly complex global environment (Berberet, 2008; Yakoboski & Glidden, 2008), educators have to embrace change and prepare graduates with the intellectual capacity to solve difficult social and cultural challenges (American Council of Education, 2006). "The global economy depends on an educated workforce possessing a greater capacity for knowledge, greater powers of critical thinking and creativity, and a deep sense of moral and ethical values" (Yakoboski & Glidden, 2008, p. 2). Consequently, graduates must be prepared to respond to global crises. Successful higher education institutions must find ways to empower faculty (Berberet, 2008) and to develop, in their graduates, collaborative problem solving skills that are multinational in perspective, because "national solutions will no longer do the trick" (Harvey, 2009, p. 1).

The United States Army recognized that the contemporary global environment required leaders who can competently and confidently lead teams and be creative problem solvers in a complex world (Allen & Gerras, 2009). General Dempsey stated, "The operational environment is complex with an expanding array of threats . . . Recognizing that fact means that in order to prevail in future conflicts, we must first win in the competitive learning environment" (Dempsey, 2010, para. 1). Because CGSC is the Army's Leadership Education Center of Excellence, it has the mission of educating future military and civilian leaders so they "know how to think, not what to think" (U.S. Army, Command and Graduate Staff College [USACGSC], 2010). In order to accomplish the leader education mission, CGSC adheres to five core principles. These principles guide institutional behavior and action and identify CGSC as a learning organization.

1. Committed to current and relevant contributions to the professional body of knowledge, and continuous improvement in student learning, teaching, and learning environment;

2. Empowering professional faculty who embrace scholarship and teaching;

3. Employing practical application of "Socratic method and discussion teaching where 'all teach and learn'" (para. 4) in a collaborative, active learner environment that focuses on student and faculty experience, reflective practice, critical reasoning, and creative thinking;

4. Training students for certainty and educating for uncertainty through multi-disciplinary curricula;

5. Creating a learning environment that supports understanding of joint interdependence and the implications of the strategic, operational, and tactical levels of war by means of "practical exercises that draw out high-order, multidisciplinary thinking and require students to integrate knowing and doing." (USACGSC, 2010, para. 6)

Discussion teaching methodology, as used in the CGSS seminar classroom, builds "personal and intellectual connections" (Brookfield & Preskill, 2005, p. xii) through what Elmore (1991) identified as a "systemic way of constructing a context for learning from the knowledge and experience of students" (p. xiv). Discussion teaching allows Army and civilian leaders to participate in a democratic environment in which they came to realize personal knowledge was limited, complex issues were open for dialogue, and individuals could risk voicing their perspectives and questioning their biases. Allen and Gerras (2009) observed that the United States Training and Doctrine Command (TRADOC), the parent organization overseeing education of mid-career Army officers at the CGSC, stated, "TRADOC instructors should understand when it is appropriate to offer direct presentation of information (lecture and demonstrations); when it is best to have a discussion; and most importantly, when to facilitate a context-dependent dialogue to develop conceptual skills" (p. 80).

The preceding section provided the institutional context for discussion teaching in CGSS. The following sections offer a description of discussion teaching, the learning environment, and faculty facilitation.

Discussion Teaching

The CGSS uses the adult education discussion teaching method within its seminar classrooms to develop reflective practice, critical reasoning, and creative thinking of the students (Allen & Gerras, 2009). This section explores the discussion teaching methodology based on Brookfield and Preskill (2005). First, the section addresses the question "What is discussion teaching?" Second, some authors believe discussion differs from dialogue, conversation, deliberation, and recitation. They do not agree about the differentiation of these terms, so their views appear in contrast to those of Brookfield and

Preskill. The third topic is a description of how discussion teaching can benefit faculty and students as well as reasons why individuals may choose to avoid discussion in the classroom. Fourth, before concluding, the section links discussion teaching to Bandura's social cognitive theory and theory of self-efficacy.

What is Discussion Teaching?

Characteristics of discussion teaching include democratic practices, critical thinking, knowledge construction, learning communities, and student partnership in classroom decisions. Brookfield and Preskill (2005) contended discussion is a democratic experience that models how a civil society ought to work. "All participants in a democratic discussion have the opportunity to voice a strongly felt view . . . the right to express themselves as well as the responsibility to create spaces that encourage even the reluctant speaker to participate" (Brookfield & Preskill, 2005, p. 3). Rossi (2006) agreed, adding that discussion teaching is an interactive, living, democratic process in the tradition of John Dewey's philosophical writings (p. 112).

Hertenstein (1991) offered support and added that the democratic process fosters learning through self-participation and the interaction when others contribute to the discussion. Christensen (1991a) described discussion teaching as a student and faculty partnership that moves the classroom from a group of individuals to a learning community of shared values and common goals. "The totality of discussion includes the intellectual and emotional experiences of a whole roomful of people" (Christensen, 1991a, p. 105). Garvin (1991) characterized discussion as a shift from an autocratic, instructor-centered classroom to one in which students share in the decision making through the application of critical thinking skills.

When students and faculty engage in discussion, the democratic process allows for individual and corporate growth. Students learn to question their assumptions and biases and they became more open to rethinking individual ideas. Brookfield and Preskill (2005) said, "Discussion is a valuable and inspiring means for revealing diversity of opinion that lies just below the surface of almost any complex issue," and as such, reflects democratic processes (p. 3). Mezirow sided with this view of discussion but reframed the term as rational discourse wherein individuals challenge their assumptions.

Such growth leads to a greater capacity for incorporating multiple viewpoints, giving rise to "a collective wisdom that would otherwise not have been possible," thus taking on moral, philosophical and personal aspects (Brookfield & Preskill, 2005, p. 4). Johnson and Mighten (2005) elaborated further: "The discussion method provides learners with an opportunity to critically think about the topic being discussed, which facilitates learning at higher intellectual levels" [e.g., analysis, synthesis, evaluation]" (p. 320).

In contrast, Isaacs (1999) held to a narrower view of discussion. He said, "Discussion is about making a decision . . . seeks closure and completion" (p. 45). Ezzedeen (2008) disagreed with categorizing discussion as simply a decision-making or problem-solving process, but rather said it encompassed knowledge construction and meaning making. Brookfield and Preskill (2005) acknowledged the problem-solving aspect of discussion but contended, "Commitment to discussion and an honoring of the democratic experience are inseparable" (p. xv).

Brookfield and Preskill (2005) also defined discussion as an "effort by a group of two or more to share views and engage in mutual and reciprocal critique" (p. 6). When conducted in an environment of cooperation and collaboration, discussion opens up the possibilities for students and faculty to gain a greater awareness of diversity in human experience.

Differences among Discussion, Dialogue, Rational Discourse, Conversation, and Recitation

Even though writers agreed about some of the characteristics of discussion, they did not agree with how Brookfield and Preskill defined the term. Isaacs (1999) limited discussion to decision making and attributed to dialogue the characteristics of shared inquiry, reflection, meaning making, and knowledge building that "leads to totally new ways to think and act . . . in which people think together in a relationship" (p. 19). Isaacs added that dialogue unites people by allowing them to see the whole picture by uncovering biases, and assumptions through new ways of thinking involving people's emotions, ideas, character, and being. Dialogue, according to Isaacs, "begins with yourself" (p. 79) and the capacity to listen so that individuals "not only hear the words, but also embrace, accept, and gradually let go of [their] own inner clamoring" (p. 83).

Allen and Gerras (2009) identified the synergy that discussion and dialogue bring to a learning organization, but maintained dialogue is the element empowering leaders to challenge personal assumptions. Allen and Gerras failed to account for how Brookfield and Preskill tied discussion to critical thinking processes within a democratic classroom environment. Mezirow (1996) tied the definition of discussion into his theory of transformative learning and refined it as rational discourse, or a way to make meaning out of experiences.

Other writers, such as Rossi (2006), were less rigid than Isaacs was in differentiating among the terms discussion, dialogue, and conversation. Ezzedeen (2008, p. 230) declared that writers often use the terms discussion, dialogue, and conversation interchangeably, but acknowledged that discussion concerns knowledge building, in line with Brookfield and Preskill (2005). Ezzedeen also noted conversation as an "informal and cooperative effort [and] dialogue as a concerted problem-solving endeavor" (p. 230).

Bruss (2009), in a speaking-across-the-curriculum project called Responsible Intellectual Discussion (RID) at Sewanee, University of the South, moved discussion from Brookfield and Preskill's framework of knowledge building into rhetorical theory and public speaking. Ketch (2005) equated conversation with comprehension, reflection, knowledge construction, meaning making, and learning communities. Consequently, the characteristics she associated with conversation reflected those of discussion, as defined by Brookfield and Preskill. In several instances, Ketch used the terms conversation and discussion interchangeably.

Goodin and Stein (2008) defined deliberative discussion as a "shared inquiry that asks participants to talk through and weigh the costs and consequences of a variety of options or solutions to a public problem" (p. 272). Consequently, their use of the term was more in line with Isaacs' (1999) idea that the primary intent behind discussion is to solve problems through deeper understanding and presentation of alternative viewpoints. Brookfield and Preskill (2005) defined deliberate discussion as "the willingness of participants to discuss issues as fully as possible by offering arguments and counterarguments that are supported by evidence, data, and logic and by holding strongly to these unless there are good reasons not to do so" (p. 13). Goodin and Stein (2008) claimed that deliberate discussion was intended to "weigh alternatives and discuss all

possible courses of action . . . toward resolving the question of right action. Conversation results in social action" (p. 272).

Mezirow (1996) provided another view about discussion and discourse that incorporated much of what has appeared in the previous paragraphs. In his theory of transformative learning, individuals made meaning through their experiences. Sometimes those experiences failed to fit into the assumptions individuals had about life. When confronted with new information that did not fit into prior life structures, individuals experienced a disorienting dilemma, according to Mezirow. To understand what had happened to them, individuals needed to engage in authentic discussion, or rational discourse, as Mezirow termed it. Rational discourse involved setting aside one's assumptions, beliefs, and values through a process of critical reflection (Merriam, Caffarella, & Baumgartner, 2006). For rational discourse to take place, faculty must ensure the environment is conducive for the exchange of ideas, as reflected in Brookfield and Preskill's (2005) writings about discussion teaching, as well as Wlodkowski's (2008) model of culturally responsive teaching. According to Mezirow, rational discourse is not an adversarial or argumentative exchange of ideas. Instead, it involves a conscious effort to arrive at an agreement, to test the meaning individuals develop based on their experiences.

Discussion, dialogue, rational discourse, and conversation share underlying concepts that involve understanding, making meaning, and exchanging ideas. The context has to be open, where individuals set aside assumptions and biases. Faculty are part of the part of the process of gaining understanding, but also have the responsibility for setting the conditions and creating the context in which the exchange can take place. Critical thinking and listening are important elements in each of the variations of discussion. The next section explains the benefits of discussion.

Benefits of Discussion

Brookfield and Preskill (2005) provided a comprehensive list of the benefits of using discussion as a way of teaching. Not only does discussion provide an opportunity to explore the diversity of opinions, increase self awareness, appreciate ambiguity,

question biases and assumptions, and develop intellectual agility within democratic classrooms, but discussion also helps participants develop "attentive, respectful listening" skills (p. 26). Listening is critical if individuals and groups wished to analyze issues.

Any number of demographic characteristics, such as gender, ethnicity/race, social status, education, learning styles, and personality traits, nuance discussion. Consequently, participants might misunderstand discussion unless they take the time to understand what others are saying and build on those ideas (Garner, 2007). Leonard (1991) noted listening as the central element differentiating discussion and recitation. "A true discussion is not a question-and-answer session but a connected series of spoken ideas" (p. 145). Christensen (1991b) explained that listening allows others to gauge the logic of an argument, assess potential contributions, make connections, and remain involved in the discussion. Hertenstein (1991) proposed that listening allows students to contribute in meaningful ways by what speakers say and how they present it.

Isaacs (1999), like Mezirow (1996) and others, identified the importance of shared meaning and common understanding among individuals, noting that the capacity to listen entails "that we not only hear the words, but also embrace, accept, and gradually let go of our own inner clamoring" (Isaacs, 1999, p. 83). Listening, Isaacs contended, allows participants to become whole and to respect the wholeness of others.

Faculty and Student Reluctance to Engage in Discussion Teaching

Educators have moved away from teaching methods that promote passive learning to those methods that actively include students in the learning process. John and Mighten (2005) wrote, "Class discussion is one of the most effective strategies for promoting active learning" (p. 320). Even though discussion teaching had numerous benefits, energized students, and provided an active learning environment, faculty and students sometimes reluctantly engaged in it. Brookfield and Preskill (2005) identified a number of reasons faculty shy away from discussion. Common reasons for not using discussion in the classroom were size of the class, preparation time, inappropriateness for hard science courses, lack of experience or faculty development, unrealistic expectations, and failure of previous attempts to integrate discussion.

Students often avoided discussion for many of the same reasons cited by faculty. Classroom environments not conducive to discussion included instructor dominance of what took place, a small number of students who dominated the process, or unclear rules about how students engaged in discussion. Wlodkowski (2008) provided practical guidelines for creating an environment in which Brookfield and Preskill's democratic discussion processes could take place. When these elements were not present, students were reluctant to take risks or express their views about complex subjects.

Garvin (1991) said that successful discussions involve three significant shifts. The first was "a shift in the balance of power: from an autocratic classroom where the instructor is all-powerful, to a more democratic environment" (p. 10). Second was a shift from material or course content to a balance of classroom processes, climate, and content that echoed Pratt's (1998) general model of teaching. The third shift involved faculty member teaching skills that were more interpersonal and geared toward group development rather than simply focusing on the transmission of material or course content. Faculty who failed to make these shifts, according to Garvin, faced disappointment in the application of discussion teaching in their classrooms. Christensen (1991a) agreed with Garvin and added that faculty have to manage the content, the material, and the classroom processes from the very beginning, to include preparation for the course. He advanced that discussion is a partnership in which power is shared among students and faculty. The classroom becomes a community, not merely a collection of individuals who sit through an hour of lecture.

Isaacs (1999) contended preparation for the discussion or dialogue environment requires an understanding of self and, "We let go of our own inner clamoring" (p. 83). Brookfield and Preskill (2005) expanded on the idea that participants must take on new attitudes to foster collaboration and respect. Creating this kind of environment is difficult and faculty often fail to set the guidelines for discussion or to help students learn how to discuss complex issues. The result of not knowing oneself or discounting one's biases while facilitating the discussion environment often leads to disappointment (Mezirow, 1996; Rossi, 2006; Wilen, 2004).

Numerous barriers emerged to implementing discussion as a teaching method in the classroom. In some cases, faculty misunderstand discussion teaching and viewed it as

a form of recitation of factual material (Johnson & Mighten, 2005). If faculty did use discussion in the classroom, they may not have known how to overcome student resistance due to the change in teaching methodology or student preconceived expectations about the classroom environment (Ezzedeen, 2008; Wilen, 2004). Faculty may not have the ability to evaluate or grade discussions or they may not be familiar with critical thinking tools (Bruss, 2009; Wilen, 2004). Merriam et al. (2006) identified potential ethical problems associated with facilitating learning that led to changes to the social fabric in students' lives. Finally, faculty lacking discussion facilitation skills did not know how to integrate the new skills they had acquired (Rossi, 2006; Wilen, 2004).

The dark side of discussion deserves mention. Although discussion brings many benefits to the classroom, improperly facilitated discussion creates problems. Power, control, and dominance are the enemies of discussion and democratic classrooms (Brookfield, 2005, 2006; Brookfield & Preskill, 2005; Wlodkowski, 2008). Faculty and students who wish to control the classroom stifle discussion by insisting on doing the talking, pushing particular points of view, or controlling the flow of the discussion "by behaving in the way they feel the discussion leader (the judge of what constitutes good participation) desires" (Brookfield, 2006, p. 117). Brookfield went on to explain that discussion often ends up reinforcing power structures and fails to deliver the tools for future participation in democratic institutions.

The dark side of discussion often places females and minorities at a disadvantage, especially if English is a second language. Mezirow (1996) wrote about obstacles to learning that involved inequities based on class, race, and gender. For instance, literature indicated that females declined to participate in discussions if males dominated the classroom or the course was viewed as a male domain, such as hard science or math courses (Maloney, Hertenstein, & Bedard, 1999). Student learning styles played a role in participation, especially if students needed time to reflect on discussion but were denied the opportunity by peers or faculty. Faculty developed the classroom environment so students felt secure, felt included, took risks, and expressed viewpoints on controversial issues (Brookfield & Preskill, 2005; Wlodkowski, 2008). Additionally, generational or ethnic demographics marginalized some students who feared entering into discussion because of age, language barriers, cultural backgrounds, and social status.

Brookfield (2006) said that the faculty needed to balance discussion in the classroom; in other words, the discussion method of teaching was not always the best teaching methodology, hence the need for discernment. Reasons for using discussion, according to Brookfield (2006), "can be grouped into three categories–intellectual, emotional, and sociopolitical" (p. 118). Each of these categories had particular nuances that alerted the facilitator when discussion seemed appropriate. Brookfield's categories included

Intellectual

- Increase students' awareness of, and tolerance for, ambiguity
- Help students recognize and investigate their assumptions
- Increase intellectual ability and openness
- Develop the capacity for clear communication or ideas
- Develop skills of synthesis and integration

Emotional

- Help students connect to a topic

Sociopolitical

- Encourage attentive, respectful listening
- Help students learn the process and habits of democratic discourse
- Affirm students as co-creators of knowledge

The CGSC philosophy described the institution as a learning organization that contributed to building knowledge, empowered faculty, used adult learning methods, and produced graduates who knew how to think through complex issues and navigated the seas of turbulence. The CGSC encouraged faculty to use discussion as means to help students attain the intellectual capacity, emotional stamina, and sociopolitical astuteness necessary for leading organizations that face incredibly complex, ever-changing, and highly sensitive multi-cultural issues. Command and General Staff College faculty must "master both content and process . . . empowered with the flexibility to determine how best to achieve program learning objectives in their classrooms" (USACGSC, 2010). When properly integrated into the faculty repertoire of teaching methods, discussion could be a powerful means for energizing learning environments capable of producing military leaders who could make sound decisions that affected national security.

This section addressed the construct of discussion teaching, its definitions, and its characteristics. Additionally, this section contained explanations differentiating discussion, dialogue, conversation, and recitation by comparing and contrasting the viewpoints among numerous writers. The section included identification of the benefits of discussion teaching, but also noted reasons why faculty and students avoid discussion in the classroom. Finally, the section addressed the importance of discussion within the CGSS classroom as a means of helping students build capacity for decision making in complex societies.

Facilitation and the Learning Environment

The Command and General Staff College described itself as a learning organization committed to improving "student learning, teaching, and the learning environment" (USACGSC, 2010). Professional faculty as "talented facilitators of learning" in the classroom who created an active and collaborative learning environment in which students practiced critical thinking to guide discussion and foster the construction of knowledge (USACGSC, 2010). This section explores the meaning of facilitating the learning environment.

Pratt's General Model of Teaching

Literature identified a number of factors able to influence how an individual viewed his or her teaching perspective. Pratt's (1998) model of teaching indicated that a person's intentions, beliefs, and actions formed the basis for commitment to a teaching perspective that emphasized one or more elements consisting of the context, learners, content, ideals, or the teacher. These elements were important if individuals wanted to understand their personal perspectives about teaching and "alternative ways of constructing learning, knowledge or skill, and multiple roles for instructors" (Pratt, 1998, p. 34).

According to Bain (2004), high quality teachers paid attention to the learning context, which he described as "a natural critical learning environment" in which students "learn by confronting intriguing . . . problems: authentic tasks that will challenge them to grapple with ideas, rethink their assumptions, and examine their mental models of reality" (p. 18). Trentin (2008) identified six characteristics of high quality teaching that

allow students to experience meaningful learning: "fostering intrinsic motivation, promoting a constructivist approach to learning, inviting students to ask questions, facilitating active learning, respecting student individuality, and cultivating mutual respect between teacher and student" (p. 10). Facilitation of active learning required teachers to be learner-centered. "Learner-centered teachers are guides, facilitators, and designers of active learning experiences. They promote democratic and egalitarian views of education and are open to different kinds of learning" (Trentin, 2008, p. 13).

Pratt (1998) acknowledged there was no right way to teach in all situations: "There is no basis for assuming a single, universal, best perspective on teaching adults" (p. 11). He reasoned that actions, intentions, and beliefs guided teacher assumptions about knowledge, learning, the purpose of adult education, teacher roles, and responsibilities expressed by a preference for one of five perspectives or teaching frameworks, shown in Figure 2.6.

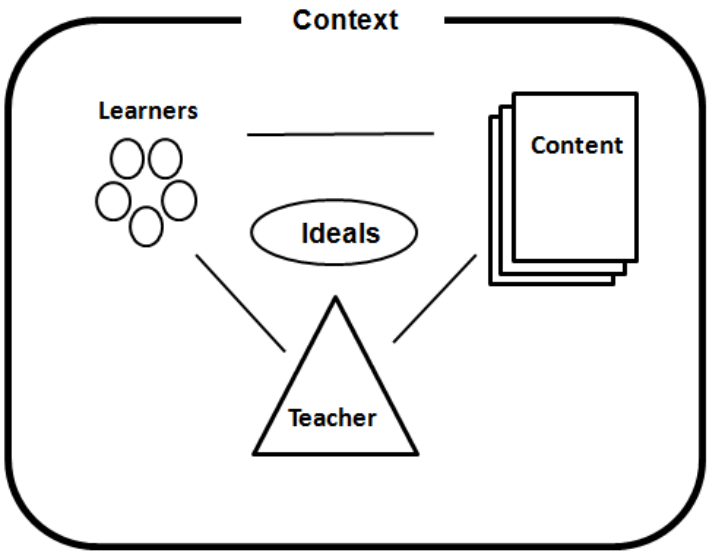

Figure 2.6. A general model of teaching. Adapted from *Five Perspectives on Teaching in Adult and Higher Education* by D. D. Pratt, 1998, p. 4. Copyright 1998 by Krieger Publishing, Malabar, FL.

Pratt identified five teaching frameworks. The first framework placed the teacher at the center of the learning process; scholars often referred to this framework as the

transmission perspective. This perspective promoted content delivery. Next, Pratt described the apprenticeship perspective, in which the content and teacher become the focus of learning. This perspective sought to enculturate learners into a community of understanding. Third, the developmental perspective placed the learner at the center of the learning process. The focus was on the learner's thinking and problem solving.

Fourth, the nurturing perspective was (and still is) the most prevalent of the perspectives in North American higher education. This perspective tied directly into Bandura's social cognitive theory and theory of self-efficacy. The nurturing perspective "is the belief that learning is most affected by a learner's self-concept and self-efficacy" (Pratt, 1998, p. 49). In this perspective, the teacher and the learner shared a high degree of reciprocity and trust. Finally, the fifth of Pratt's teaching perspectives was social reform. The social reform perspective focused on ideals as the center of the learning process. The students and the content became secondary to promoting a broader agenda of social improvement.

Grasha's Categories of Teaching Styles

Grasha (1996, 2002) offered another opportunity to categorize teaching styles. Based on research involving 378 cross-discipline faculty members, Grasha identified the teaching methods shown in Table 2.2. These styles were not isolated from one another and ought to be used in coordination with learning styles of the students. For instance, a graduate student may resist an authoritative teaching style during the preparation of a thesis or dissertation. Likewise, a freshman in an introductory course may need more guidance and may have expectations that faculty will provide detailed explanations. Consequently, faculty who engaged in self-reflection about their teaching practices could "better understand teaching, make informed choices among alternative ways to teach, and identify the parts of their teaching styles that are either helpful or problematic" by "effectively and seamlessly adopt[ing] a variety of styles" (Grasha, 2002, p. 140). Grasha observed that faculty brought with them ingrained perceptions of roles, attitudes, and behaviors, whether or not they were consciously aware of their particular teaching style. If faculty wished to be effective, they "must cultivate an ability to flow from one style to another, based on student learning styles" (Grasha, 2002, p. 140).

Table 2.2. ***Grasha's Four Teaching Methods***

Style	Faculty Role	Behaviors
Expert/Formal/Authority	Prescriptive Advisor Questioner (closed ended) Mini-Lecturer Provider of Feedback (evaluative)	Gives detailed explanations Provides succinct answers Provides details on what to do Emphasizes knowledge, comprehension Gives an overview of issues Provides clear expectations and goals Sets high standards for project or task Believes in correct ways of doing things
Personal Model	Coach Role Model Provider of Feedback (not evaluative)	Teaches by example Provides guidance alongside student Perceives self as role model to follow Gives feedback that helps learner
Facilitator	Provider of Feedback (not evaluative) Active Listener Discussion Facilitator Questioner (open ended)	Provides feedback, enhances skills Uses descriptive, nonjudgmental feedback Listens to learner before intervening Engages individuals in discussion Encourages and supports Asks questions to facilitate critical thinking
Delegator	Consultant Resource Person	Encourages appropriate autonomy Directs responses to learner needs Helps learner explore options Delegates tasks and responsibilities Gives guidance, suggests resources

The CGSS envisioned faculty who were "expert in their field of study, talented facilitators of learning, and empowered with the flexibility to determine how best to achieve program learning objectives in their classrooms" (USACGSC, 2010). This view of faculty incorporates Grasha's ideas about the ability of faculty to seamlessly flow among the categories of teaching styles. Within CGSS, faculty determined which of Pratt's teaching perspectives they would use in their seminar and tie into Bandura's thoughts about the constructed environment (Bandura, 2006a).

Consequently, faculty faced the challenge of reorienting their intentions, beliefs, and actions by adopting a different teaching framework within the Pratt and Grasha models. Changing teaching perspectives required faculty to develop new classroom practices that included acquisition of effective facilitation skills. The next section provides a definition of facilitation in academic settings.

Facilitation in Academic Settings

Faculty who exhibited Pratt's (1998) learner centered and Grasha's (2002) facilitator approach to teaching strived to design an active social learning experience in which students constructed understanding to produce "sustained and substantial influence on the way people think, act, and feel" (Bain, 2004, p. 17). Grasha's idea about sustained influence, however, had its limitations. As Schwarz (1994) stated, "Facilitators do not change peoples' behavior. Facilitators provide information that enables people to decide whether to change their behavior. If they decide to change their behavior, the facilitation helps them learn how to change" (Schwarz, 1994, p. 8). Within this role, the facilitator had three values that encompassed valid information, free and informed choice, and internal commitment to the choice. Descriptions of these values are in Table 2.3. These values replicated Wlodkowski's motivating environment and Brookfield's democratic classrooms.

Thus, faculty are responsible for facilitating a learning environment conducive to "generating an experience that has educative quality" (Dewey, 1938/1998, p. 46). Facilitating learning promoted student discussion in a constructive, socially interactive, integrated language environment (Brookfield, 2006; Shea-Bischoff, 2001). Such an environment shared the idea of Vygotsky's zone of proximal development, in which individuals created a social environment supportive of learning (Doolittle, 1995). Within this environment, individuals learned "with the support of others, that which we cannot learn alone" (Shea-Bischoff, 2001, p. 24). Empowered students came together so they could think and talk (Isaacs, 1999). The environment provided for dialogical mental processes focused on common understanding and the development of social contextual language through collaborative, interactive learning (Shea-Bischoff, 2001).

Table 2.3. ***Descriptions of Facilitator Values***

Core Value	Description
Valid Information	People shared all relevant information People shared information in a way that others understood it. People shared information in a way that others could independently validate it. People continually sought new information to determine whether previous decisions should be changed.
Free and Informed Choice	People defined their own objective methods. People were not coerced or manipulated. People based their choices on valid information.
Internal Commitment to the Choice	People felt personally responsible for their decisions. People found their choices intrinsically compelling or satisfying.

Note. Adapted from *The Skilled Facilitator: Practical Wisdom for Developing Effective Groups,* pp. 8-9, by R. Schwarz, 1994. Copyright 1994 by John Wiley and Sons, New York, NY.

Good facilitators created a learning environment that was flexible, responsive to the needs of the students, welcoming of student inquisitiveness and questioning, sensitive to those without a voice, and allowing room for the transformation of mental models. This type of environment resulted in "people [who] are most likely to enjoy their education if they believe they are in charge of the decision to learn" (Bain, 2004, p. 47). The next section identifies the qualities inherent in best practices of successful faculty facilitation.

Faculty Qualities for Successful Classroom Facilitation

Successful facilitation of a healthy learning environment crossed multiple domains of faculty classroom activity that included the learner, faculty, and classroom practices. Bain (2004) claimed a healthy learning atmosphere was one in which the faculty and students created a community characterized by "rich intellectual conversations in a collegial environment" and one that valued the worth of the student (p. 175). Bain's study of faculty best practices asked questions about faculty expertise and knowledge, preparation for teaching, expectations about students, what they did in the classroom, how they treated students, and an assessment or evaluation of student

progress. The next section identifies the instructor qualities for successful classroom practices by considering faculty as facilitators and "guides to the side."

During her research, Randolph (2006) found that participants felt the facilitator was most effective as a "guide to the side" (p. 73). Guiding from the side encompassed five factors necessary for successful facilitation in a collaborative learning environment. The first factor, called positioning, characterized the facilitator's capability to move into and out of the role of co-constructor of knowledge and co-participant in the group. At times, the facilitator pulled back from the co-constructor role in order to keep the group on track. However, the facilitator also sensed appropriate times to join as a co-learner in the group (Randolph, 2006).

Flexibility and clear goals comprised the second of Grasha's (2002) five factors. This factor required that the facilitator communicate the group's purpose to attain shared understanding. The facilitator needed flexibility that allowed the group to pursue knowledge construction in what appeared to be sidetracks. Randolph (2006) noted the constant tension between these aspects of facilitation, but indicated clear and mutually established goals were essential for intentionality.

Third, Randolph (2006) described intentionality from the perspective of different ways of knowing as "The belief that communication is possible as our starting point. It is the precondition for our engagement with each other as fellow human beings," with the objective being "to educate oneself and others about the character of culture, the set of ideas and practices, however implicit, through which we human beings apprehend the world and ourselves in it" (Goulet, 1998, as cited in Randolph, 2008, p. 79). The fourth factor Randolph (2006) considered essential required that facilitators build mutuality and relationships. She described mutuality as a classroom that exhibited openness and trust. Openness and trust were essential elements for a successful collaborative environment that emerged from the relationships, dialogue, discussion, and the construction of knowledge.

Randolph's fifth element considered the personalities of those in the group. Participants in Randolph's research asked if a group that had anti-collaborative individuals could attain dialogue and collaborative learning. In most classrooms, facilitators did not have the luxury of choosing who attended. Therefore, the facilitator

used his or her skills to bring individuals into common agreement, suspend judgment, and approach problems or issues with an open mind. The facilitator played "an important part in making a space for all to speak, and gradually, group members must come to share in this mutuality" (Randolph, 2006, p. 87). Thus, the facilitator had to have the capability to model appropriate discussion behaviors, establish expectations through clear goals, and spark the internal motivation within each student to gravitate towards community and dialogue. These skills are essential if classrooms were to become democratic in which all voices had an opportunity to be heard.

Motivational Classroom Environments

Wlodkowski (2008) contended faculty held the responsibility to enhance adult motivation to learn. He wrote, "As educators, we know that understanding why people behave as they do is vitally important to helping them learn" (p. 2). Wlodkowski observed that culture heavily influenced the intrinsic motivation to learn, mediated by emotions, "Thus, a person's response to a learning activity reflects his or her culture" (p. 21). He focused his book, *Enhancing Adult Motivation to Learn: A Comprehensive Guide for Teaching All Adults*, on pragmatic ways that faculty created learning environments sensitive to the diversity of students in the classroom. Adult learners brought multifaceted perspectives into the classroom, based on their interaction with culture. Adult learners interpreted those interactions, developed their belief systems, and renewed interaction with culture. "We construct our own reality," wrote Wlodkowski, "by interpreting the external world on the basis of our unique experiences with it and our beliefs about those experiences" (2008, p. 43). Bandura (1997) accounted for this interactive process in his model of triadic reciprocal causation, whereby the environment, personal factors, and behaviors acted upon one another.

Faculty felt challenged to "create equitable and successful learning environments for *all* [italics original] learners" (Wlodkowski, 2008, p. 44; also see Au, 2009; Huff, 2009; Kausler, 2004; Santamaria, 2009). According to Wlodkowski, faculty who incorporated the core characteristics established the classroom conditions that enhanced learning and increased student persistence, competence, and achievement. Wlodkowski's motivational framework for culturally responsive teaching (Figure 2.7) provided a

holistic explanation of how the four conditions for enhancing adult motivation (inclusion, attitude, meaning, and competence) helped individuals derive understanding from their cultural experiences and what took place in the classroom. Therefore, Wlodkowski said that faculty needed "to be intentional about how we establish and coordinate these conditions when we plan or design a lesson" (p. 115).

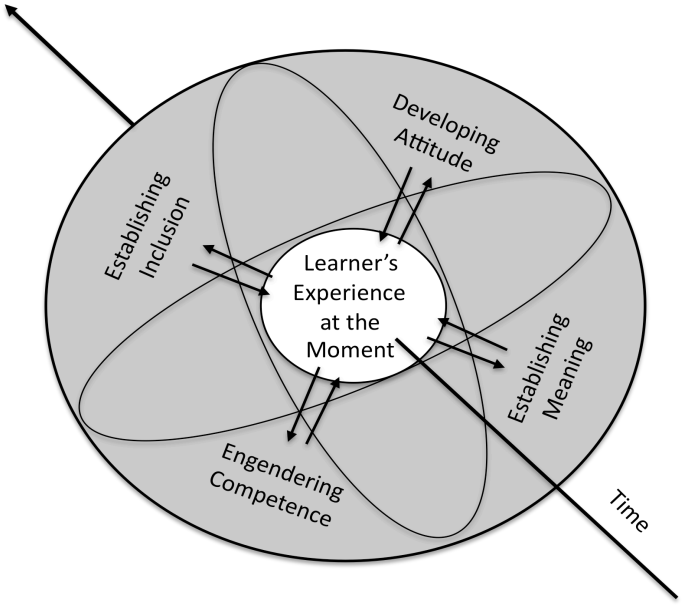

Figure 2.7. The motivational framework for culturally responsive teaching. Adapted from *Enhancing Adult Motivation to Learn: A Comprehensive Guide for Teaching All Adults* (3rd ed., p. 113) by R. J. Wlodkowski, 2008. Copyright 2008 by John Wiley & Sons, New York, NY.

Wlodkowski (2008) identified motivational classrooms as culturally responsive but also noted, "Learning and motivation are inseparable from culture" (p. x). This connection signified to faculty the importance of the CGSS classroom culture. As previously identified in this chapter, CGSS seminar classrooms had a mixture of students with various ethnic backgrounds, military traditions, levels of education, and combat experiences. Seminar diversity posed a challenge as faculty created an environment suitable for discussion about sensitive topics (Brookfield, 2005). Faculty may or may not have had the resources or teaching models "to consistently and sensitively influence the motivation of linguistically and culturally different learners" (Wlodkowski, 2008, p. 3).

Regardless of the composition of the CGSS seminar, Wlodkowski presented two major assumptions about adult learning. First, "*If something can be learned, it can be learned in a motivating manner* [italics original]" (Wlodkowski, 2008, p. 46). The CGSC philosophy of teaching, based on Socratic and adult learning methodologies, was "learning-centered, experiential, and effective" (USACGSC, 2010). The second assumption was that "*Every instructional plan also needs to be a motivational plan* [italics original]" (p. 47). The CGSS faculty was "empowered with the flexibility to determine how best to achieve program learning objectives in their classrooms" (USACGSC, 2010).

Motivated instructor core characteristics included skills that instructors learned and "improve[d] upon through practice and effort" (Wlodkowski, 2008, p. 50). Wlodkowski included three sub-components in the first skill, expertise: "(1) We know something beneficial for adults, (2) we know it well, and (3) we are prepared to convey or construct it through an instructional process" (p. 51). These elements appeared in the CGSC principles and philosophy of teaching.

Other authors agreed with Wlodkowski that faculty must be experts in their field. For instance, Bain (2004) said, "Outstanding teachers know their subjects extremely well" (p. 15). Likewise, Brookfield (1986) described exemplary instructors as those who

> Are concerned about the learners, are knowledgeable in their subject, relate theory to practice in their field to other fields, appear confident, are open to different approaches, present an authentic personality in the class, are willing to go beyond class objectives, and are able to create a good atmosphere for learning. (p. 133)

Au (2009) believed that faculty who understood their students made evident "patterns of instruction consistent with a *diverse worldview* [italics original] that resonates with the cultural values of many non-mainstream groups" (p. 80). Wlodkowski (2008) called this characteristic *empathy*. Empathy consisted of three components: (a) realistically understand learner goals and expectations, (b) adapt lessons to the adult experience, and (c) consider the learner's perspective. Empathy required good listening skills. Listening for understanding was a "powerful transaction that occurs between us and another person" (Wlodkowski, 2008, p. 67). It let the learner know that faculty respected them. Students felt safe and entered into discussion when faculty suspended judgment. Listening indicated that faculty was truly interested in what students learned

and that "such respectful interest can elicit deeper dialogue and mutual understanding" (p. 67).

Wlodkowski (2008) added enthusiasm to the list of motivating faculty characteristics, and wrote that it was the "person's inner feelings as they are expressed in outward behavior" (p. 69). Enthusiasm encompassed the faculty members' values about what they taught. It was the outward display of inner commitment. Pratt's (1998) general model of teaching highlighted how intentions, beliefs, and actions interacted among each other and demonstrated commitment to a teaching perspective. "Commitment", Pratt wrote, "is revealed through the way a person teaches (actions), what a person is trying to accomplish (intentions), and statements of why those actions and intentions are reasonable, important, or justifiable (beliefs)" (1998, p. 7).

Wlodkowski (2008) included clarity as another motivating characteristic or skill associated with how faculty delivered instruction. Faculty planned how they conducted instruction so all learners achieved understanding of the material. Language, a critical component of understanding, created problems for students who spoke multiple languages. Faculty who recognized this potential barrier provided alternate ways through which students gained understanding.

Wlodkowski (2008) added cultural responsiveness to the list of motivating skills. Cultural responsiveness provided for inclusive, safe, and respectful learning environments that promoted student engagement in ways relevant to the student. Wlodkowski (2008) defined cultural responsiveness as "a respect for *diversity* [italics original], an understanding that people are different as a result of history, socialization, and experience, as well as biology" (p. 87). Santamaria (2009) defined cultural responsiveness as, "culturally responsive teaching . . . a collection of best teaching practices to enhance the academic success of students who are culturally different in classroom settings" (p. 216). Santamaria maintained culturally responsive teaching could "empower students intellectually, socially, emotionally, and politically by use of cultural references that import knowledge, skills, and attitudes" (2009, p. 222).

Faculty needed skills that motivated adult learners, and they also had to set the conditions in the classroom that fostered motivation (Figure 2.7). Huff (2009) wrote, "Research suggests that optimal outcomes within many environments can be expected

under facilitating conditions that support satisfaction of psychological needs" (p. 6). Wlodkowski said that instructors had to create a motivating learning environment that affected the student psychological needs in four ways [italics original]:

1. *Establishing inclusion*: creating a learning atmosphere in which learners and teachers feel respected and connected to one another,

2. *Developing attitude*: creating a favorable disposition toward the learning experience through personal relevance and volition,

3. *Enhancing meaning*: creating challenging and engaging learning experiences that include learners' perspectives and values,

4. *Engendering competence*: creating an understanding that learners are effective in learning something they value. (Wlodkowski, 2008, p. 218)

Students sensed when a classroom had an atmosphere of inclusion (or exclusion), respect, safety, and motivation to learn. In classrooms where inclusion, respect, and safety were absent, Wlodkowski (2008) noted the effects on learning where, "complex information is often blocked from passage to higher cortical and memory storage which slow learning, increase our frustration, aggression, or withdrawal" (p. 126). In other words, when inclusion was missing, the motivation to learn evaporated.

Other authors expressed the same sentiments as Wlodkowski. Huff (2009) talked about relatedness and "establishing close personal bonds with others . . . to be emotionally and securely connected to others" (p. 31). Dynamics such as non-verbal communications, individual or group connectedness, gender, spatial distances between individuals, and the context in which interactions took place affected the sense of inclusion and safety (Siwata & Starker, 2010; Wlodkowski, 2008).

Adults entered the classroom with varied attitudes about learning. Those attitudes arose from personal experiences and "predispose adults to respond favorably or unfavorably toward particular people, groups, ideas, events, or objects" (Wlodkowski, 2008, p. 172). Wlodkowski also wrote, "*If adults have a problem experiencing success or even expecting success, their motivation for learning will usually decline* [italics original]" (p. 100). He expressed this thought in a progressive equation:

Success + Volition + Value + Enjoyment

Ongoing motivation required success in understanding or executing a task, along with the individual's willingness for continued learning. Success plus volition formed the basic level of learning, according to Wlodkowski. With the addition of value, the learner found meaning within the learning process, even though it posed challenges. At the highest level, the adult learner experienced "learning as pleasurable and intrinsically motivating" (Wlodkowski, 2008, p. 101). When individuals experienced intrinsic motivation to learn, they also became increasingly self-directed, visible through four attitudinal directions: (perception + judgment → emotion → behavior). Wlodkowski tied intrinsic motivation, self-regulation, and the attitudinal directions to self-efficacy.

> Theoretically, these four adult attitudinal directions integrate the self-motivation processes of self-direction theory (Zimmerman & Kitsantas, 2005)–self-efficacy, outcome expectations, task interest or value, and goal orientation–with the cultural beliefs, values, and norms that adults bring to a learning situation (Wlodkowski, 2008, p. 172)

Adults came into the classroom with differing views about their learning capabilities. They may have had experiences that created attitudes and may have led them to overestimate or underestimate their capacity to learn. Within the classroom, faculty used mastery experiences, vicarious experiences, social persuasion, and emotional arousal that influenced student expectations about learning. Additionally, students saw that they had personal control of their learning and responsibility for their learning outcomes. Therefore, the student needed to set realistic and attainable learning goals, along with an assessment of their progress. When students experienced success in the classroom, their self-efficacy increased and their attitude towards learning became increasingly positive (Wlodkowski, 2008). Faculty also had to establish conditions that enhanced meaning in the classroom. Adults attributed meaninglessness in learning activities to boredom that stemmed from lack of challenge, relevance, and repetition. Huff (2009) identified lack of relatedness as a problem for student engagement. He wrote, "Declining sense of relatedness [resulted] in declining engagement" (p. 32).

Wlodkowski (2008) wrote that research about how boredom and meaninglessness affected learning proved inconclusive. Self-efficacy theory indicated those with high self-efficacy beliefs possessed the capacity for persistence when learning was tough,

boring, or meaningless. Individuals with low self-efficacy beliefs quickly gave up when they encountered problems. "Through means of personal will and self-regulation, people seem amazingly capable of continued effort to pay attention when they want to" (Wlodkowski, 2008, p. 226).

Grabbing the adult learner's attention was a prerequisite to creating meaning in the classroom. When joined with "emotion (primarily interest) as well as metacognitive processes, such as learning strategies . . . learning is more likely to be retained . . . Without engagement, learning does not have a chance to have meaning" (Wlodkowski, 2008, p. 228). In Wlodkowski's model of culturally responsive teaching, student engagement linked nicely to Csikszentmihalyi's writings about flow. Flow was an intense, but subjective experience "that people report when they are completely involved in something to the point of forgetting time, fatigue, and everything else but the activity itself" (Csikzentmihalyi, Abudhameh, & Nakamura, 2005, p. 598). Learners who experienced a sense of flow became one with the activity, sensed greater control, and became unaware of time. Engagement in learning pushed aside boredom.

The conditions for flow required a clear set of goals (Csikzentmihalyi et al., 2005; Wlodkowski, 2008). Students also needed an understanding of their performance versus their capability, so faculty provided clear feedback to the students about their progress. The value the students placed on the learning activity affected the level of effort they put into the project. Huff (2009) agreed, adding that belonging played an important part in establishing goals. "Feelings of belonging at school are positively related to adopting master goals" (Huff, 2009, p. 33).

Competence was the fourth condition faculty considered when setting conditions in the classroom that maximized student motivation to learn. Students lacked feelings of competence when they lost control, had unsuccessful experiences, or felt insecure when they engaged in the activity. Competence, linked to volition and self-direction, emerged when students sensed respect, expected success, and engaged in the task (Wlodkowski, 2008). Elliot and Dweck (2005) said competence was a part of everyday life and had an impact on emotional well being. They said it existed in various forms and at different intensity throughout life, and was "evident in all individuals across cultural boundaries"

(p. 8). Huff (2009) added that competence provided for "positive emotional experience" to foster the motivation to learn (p. 28).

The words associated with competence "such as 'success', 'failure', and 'learn' have different connotations in different countries" (Eliot & Dweck, 1995, p. 8). Within the classroom, these connotations affected learning. Student perceptions about words tied to competence influenced their relatedness to the material or learning activity. Kausler (2004) captured this idea when he wrote, "Learning experience that promotes autonomy in learning fosters a sense of competence in students about their own learning . . . and provides opportunities for students to relate to the content knowledge" (p. 16).

Classroom Practices

Earlier sections considered discussion of the culturally sensitive classroom environment that provided conditions to maximize inclusiveness, meaning, positive attitudes, and competence and increase learning for all students. The successful learning environment incorporated a constructivist approach (Randolph, 2006; Trentin, 2008) wherein faculty invited students to ask questions (Trentin, 2008) and the questioning included dialogical experimentation (Lussier & Achua, 2007). Students who engaged in cross discussion had minimal direction from the facilitator (Lussier & Achua, 2007). Faculty who encouraged inclusiveness paid attention to all the voices in the group (Brookfield, 2005, 2004; Dallinmore, Hertenstein, & Platt, 2004; Grasha, 2002; Isaacs, 1999; Maloney et al., 1999; Randolph, 2006). The classroom was a community of learning that helped build relationships and generated a climate of approval that allowed for free expression of ideas and feelings (Lussier & Achua, 2007). Facilitators who encouraged students to deal with maintenance needs and problems of their learning community empowered students and enabled them to take ownership of the classroom (Lussier & Achua, 2007).

Learner characteristics that facilitators sought to build included their internal motivation to learn (Trentin, 2008; Wlodkowski, 2008). With the guidance of the faculty, students became empowered when they recognized the untapped potential of their existing knowledge and experiences (Lussier & Achua, 2007). Facilitators provided incentive for students to take responsibility for their learning decisions when they helped

students relate their knowledge and experiences to what happened in the classroom (Lussier & Achua, 2007).

Effective facilitators sought to develop their personal capabilities of flexibility, adaptability (Trentin, 2008), good communication (Gay, 2000; McKeachie & Svinicki, 2006), and the artistry of active listening (Lussier & Achua, 2007). Success depended on how well the facilitators established trust and acceptance, suspended their assumptions, and became transparent by making their intentions explicit (Brookfield, 2005). Additionally, they achieved their learning objectives much more easily when they seamlessly moved among teaching methods that included discussion and dialogue (Bain, 2004; Brookfield, 2005; Christensen, 1991b; Isaacs, 1999).

Facilitators who expected student improvement in discussion, questioning, suspension of judgments, and critical thinking had to model those behaviors in the classroom (Lussier & Achua, 2007). Good facilitators possessed knowledge about their particular field of study, were widely read, and subscribed to scholarship. They acquired the ability to relate what they understood about life experiences to the classroom (Bain, 2004; Grasha, 2002). Facilitators who recognized and understood the impact of socio-cultural contexts or frames of reference (Wlodkowski, 2008) connected with the students and recognized what others felt (Lussier & Achua, 2007). Facilitators who pushed aside their need for control enabled students to take responsibility for the learning environment (Lussier & Achua, 2007).

Student expected that outstanding faculty shared many of the characteristics and qualities described in the previous paragraphs. Dallinmore et al. (2004) provided the following list of expectations of faculty compiled from student input. Students expected faculty to

- Provide requisite graded participation requirements in the syllabus.
- Incorporate instructor and student ideas.
- Be active facilitators, not detached observers.
- Ask effective, open-ended questions.
- Create a supportive classroom environment.
- Affirm student contributions and provide constructive feedback.

This section provided an overview of facilitation and the classroom environment. Faculty as facilitators tried to create a collaborative learning environment. This section identified ways in which faculty members could encourage students to take responsibility for discussion and learning and addressed classroom best practices for engendering and sustaining an atmosphere conducive for discussion.

Chapter 2 Summary

Chapter 2 provided a review of literature pertaining to social cognitive theory and the central construct within that theory, called self-efficacy. Included in this review was a brief summary of common misunderstandings associated with self-efficacy research. Following the description of self-efficacy, Chapter 2 focused on definitions of the dependent variables (gender, age, race/ethnicity, academic title, leadership position, education level, and teaching experience) that comprise the faculty demographics. Next, the chapter provided an overview of the research setting at the United States Army Command and General Staff College. Definitions of discussion, facilitation, and the learning environment concluded Chapter 2. Chapter 3 presents the research methodology.

CHAPTER 3 - Methodology

Introduction

Chapter 3 provides greater detail about the research methodology. The chapter includes a description of the research design, population, instrumentation, data collection and analysis, and protection of human rights.

Research Design

This study involved the measurement of faculty self-efficacy beliefs about their capability to facilitate discussion in small seminar classrooms. As mentioned in Chapter 1, the study used a pragmatic approach; hence, the research design reflected use of a mixed methods sequential explanatory design. The tools chosen for data collection included a Likert-type quantitative survey instrument and qualitative semi-structured interviews.

Rationale for Methodology

The mixed methods sequential explanatory (participant selection model) research design provided synergistic and holistic understanding about faculty self-efficacy beliefs in a higher education, small class seminar environment (Creswell & Plano Clark, 2007; Day et al., 2008; Morse, 1991a; Tashakkori & Teddlie, 2002). In addition, the research design achieved greater research sophistication (Johnson & Onwuegbuzie, 2004), answered questions that neither quantitative nor qualitative designs could answer singly, (Tashakkori & Teddlie, 2002), facilitated understanding via a common research language (Johnson & Onwuegbuzie, 2004), provided for a strong empirical support base for research (Desimone, 2009), and avoided camping on a specific theory or method of research. It acknowledged the contributions from multiple perspectives across literature, theories, and research methods (Weis et al., 2009).

Renewed emphasis on research rigor and a call for increased sophistication of evidence in support of research conclusions led to qualitative data that provided stronger evidence for those conclusions (Creswell & Plano Clark, 2007; Johnson & Onwuegbuzie,

2004). One of the strengths of mixed methods research design was that it allowed the "research to develop as comprehensively and completely as possible. When compared with a single method, the domain of inquiry is less likely to be constrained by the method itself" (Morse, 2003). However, Morse also pointed out that the strengths of the mixed method design could also be its weaknesses in that methodological purists considered the quantitative data as thin and the mixed method design as less rigorous (Creswell, Plano Clark, Gatmann, & Hanson, 2003).

Tashakkori and Teddlie (2002) identified three challenges for researchers engaged in mixed methods research. First, the design used in this study required that the questions, data analysis, and research sequence align with the mixed methods sequential explanatory research design. Second, conceptual consistency involved alignment of study inferences with social cognitive theory and teacher self-efficacy theory. Third, cross-reference consistency necessitated that answers to research questions be connected to one another, aligned with current theory, and consistent to other studies. Tashakkori and Teddlie (2002) stated, "Strategies for integrating these inferences are more critical than the dominance of one [quantitative or qualitative] approach over another" (p. 41). If the study lacked validity and consistency, the methodology that dominated the study was unimportant.

In addition to the considerations already mentioned, other factors affected selection of this research design. These factors consisted of timing, weighting, and mix of the data. Timing in the research design had less to do with the collection of data and more to do with analysis and interpretation of data, yet, according to Creswell and Plano Clark (2007), the data collection and analysis were interrelated. The mixed methods sequential explanatory design used quantitative data from phase one to develop questions plus the purposeful participant sample matrix essential for data collection in phase two.

Weighting in a mixed methods study indicated the importance of the data and reflected the worldview of the researcher. A positivistic researcher tended to weight quantitative data more heavily, while someone with a naturalistic worldview might have emphasized qualitative data. This study was pragmatic; consequently, the importance of the data emerged from the types of questions asked (Creswell & Plano Clark, 2007; Hanson, Creswell, Creswell, Plano Clark, & Petska, 2005) rather than from focus on the

method. However, the emphasis in the current research was on the qualitative data from participant interviews that provided context for how the independent variables affected faculty self-efficacy beliefs.

Research Questions

Quantitative

The primary quantitative research question was, "What were faculty self-efficacy beliefs about their capability to facilitate discussion in small group seminars?" The secondary questions appear as null hypotheses.

$H1_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable gender.

$H2_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable age.

$H3_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable ethnicity/race.

$H4_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable education level/degree.

$H5_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable teaching experience.

$H6_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable academic title.

$H7_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable leadership position.

Qualitative

The primary qualitative research question was, "How did faculty perceive themselves as facilitators of discussion in the classroom?" The interview protocol questions in Appendix F gathered the data to answer the research question.

Variables

The dependent variable used in this study was faculty self-efficacy beliefs. Independent variables were gender, age, ethnicity/race, education level, teaching experience, academic title, and leadership position.

Population and Sample

The quantitative phase one targeted the faculty of the U.S. Army Command and General Staff College via an Internet-based survey instrument. Phase two involved the researcher's decisions about a deliberate sample of the participants who responded to the quantitative survey.

Quantitative

Faculty at the U.S. Army Command and General Staff College (CGSC) were the target population for the study. Faculty populations were located at the Fort Leavenworth, Kansas main campus site ($N = 369$) and three satellite campuses at Fort Belvoir, Virginia ($N = 24$); Fort Lee, Virginia ($N = 12$); and Fort Gordon, Georgia ($N = 12$). Another satellite campus commenced teaching in January 2010 but was not included in this study because the CGSC had not completed hiring of faculty for that site. The CGSC Quality Assurance Office granted permission to survey and interview the faculty population at the Fort Leavenworth, Kansas, main campus and the three satellite campuses (see Appendix A).

Chapter 2 provided an explanation of the CGSC structure and the Intermediate Level Education (ILE) program at the main and satellite campuses. Appendix G shows the faculty demographics for the main campus as reported in the September 2009 Officer Professional Military Education Program faculty report. This report identified 353 faculty members at the main campus, of which 240 (68%) were Department of the Army civilian employees (Title V and Title X), and the remaining 113 (32%) were military

officers in the rank of major or lieutenant colonel. Only 10 (3%) of the 353 faculty members were female and 22 (6.2%) self-identified as People of Color. Faculty members identified by the title of instructor were 154 (43.6%) and those titled assistant professor were 140 (39.7%). Seventy faculty members had two years or less of higher education teaching experience (19.8%) and 66 faculty (18.7%) had between two and five years of experience.

Qualitative

Faculty members who voluntarily responded to the quantitative survey in phase one of the study comprised the target for qualitative data collection. The purposeful sample matrix in Table 3.1 identified demographic characteristics that helped guide the selection of individuals for the interviews. Faculty members had an opportunity to volunteer for the interview process, and of those who provided contact information, 12 eventually followed through and completed interviews. One faculty member elected to complete the interview using an e-mail message. The interview sample resembled the faculty at CGSC as closely as possible, in terms of both demographics and locale.

Instrumentation

Quantitative

Theoretical foundations for the current study included social cognitive theory and the theory of self-efficacy (Bandura, 1997). Instruments used in the study aligned with theory to avoid confounding constructs, terminology, and developing measures that produced questionable data. The Faculty Self-Efficacy Beliefs Scale (FSEBS) used a 5-point Likert-type scale to measure faculty self-efficacy beliefs about their capability to facilitate discussion in small group seminar classrooms (see Appendix H).

Instrument Selection

Chapter 2 provided a detailed description of the TEBS-S four-phased development process. That process resulted in a valid and reliable instrument consistent with Bandura's (1977, 1997) theory of self-efficacy. The Dellinger (2008) TEBS-S short

form had little correlation to the concept of teacher efficacy as measured in other traditional instruments incorporating the RAND items.

Even though the TEBS-S was valid and reliable, its usefulness in higher education contexts was limited because Dellinger and associates intended it to measure teacher self-efficacy in grades K-12. Rather than the earlier 2001 instrument version, Dellinger recommended (see Appendix I) using the latest 2008 TEBS-S version (Appendix J). Consequently, the 31-question 2008 TEBS-S version became the basis for developing the FEBS instrument used to measure higher education faculty self-efficacy beliefs in the present study. Modifications to the instrument involved rewording questions to reflect the type of work at higher education institutions. The modifications to Dellinger's TEBS-S (2008, p. 764) are in Appendix K

Internet Instrument Development Procedures

The CGSC QAO served as the access point and quality control for all survey instruments administered to staff, faculty, and students in the CGSS. This office approved the research survey on June 16, 2009 (Survey Control Number 09-080; see Appendix B). The tool chosen to develop the web-based survey instrument was Inquisite Web Survey Builder (9.0). The CGSC QAO reviewed and then published the instrument. Publishing the instrument referred to placing the survey on the Internet through Inquisite, with data storage occurring behind a U.S. Army controlled firewall that prevented unauthorized access. Faculty members at the CGSS were familiar with the Inquisite type of web-based survey instruments. Computer technology within CGSS supported these instruments. Inquisite features included

- Survey review and editing functions;
- Automatic blinding of the researcher from the list of participant names;
- Automatic confidentially (prevention of matching participants to responses);
- Safeguards preventing multiple survey submissions by the same user, forwarding the website access to unauthorized users, or changing the survey;
- Tally functions of surveys sent out, undeliverable surveys, and non-responses;
- Data preparation for export to statistical packages.

This researcher received training, provided by CGSC QAO, and developed the online survey instruments. The initial development required four hours and subsequent edits about one to two hours each. Inquisite software supported piloting the survey instrument, identification of Internet or survey functionality issues, and user understanding of the instructions.

Expert Panel Review

Developing an online survey was not an isolated event. Online survey development was part of a holistic fielding process that was important for achieving acceptable response rates and reducing survey errors (Schonlau, Fischer, & Elliot, 2002). Survey question development was essential for generating useful data. Poorly worded questions that were ambiguous and not representative of the content might have limited the usefulness of the data and jeopardized the validity and reliability of the study. A panel of six experts reviewed the initial adaptation of Dellinger's (2008) survey instrument.

Three criteria were important for selecting expert panel members to review the FEBS. The criteria included (a) teaching experiences in a higher education institution, (b) a doctorate degree or engaged in a doctorate program, and (c) experience developing or administering an online survey. All six individuals selected to review the survey instrument had experience teaching in higher education, with four individuals having taught at multiple institutions. Three individuals had prior experience as CGSS faculty. All individuals possessed a doctorate degree or were engaged in a doctorate program. One individual had published portions of his dissertation research in professional journals. Five of the individuals had experience in developing survey instruments. Two individuals had extensive experience in psychometrics. Two individuals had developed online survey instruments.

The expert panel received a web link to a copy of the survey instrument. Instructions to panel experts were to

1. Read the instrument and annotate grammatical problems, unclear instructions, and poorly worded questions.

2. Navigate through the instrument to ensure logical flow of the survey and ease of use.

3. Attempt multiple response sequences to ensure the instrument would direct individuals to the appropriate demographic questions, as well as to the survey itself.

The panel found some spelling and grammatical errors, poor word choices for some questions, and issues with the "finish" and "submit" selections at the end of the instrument. They recommended changes categorized under four headings: overall instrument format and flow of questions, grammar, question clarity and choice of phrases or wording, and color and graphical layout of the survey. The expert panel members provided feedback that resulted in corrections made prior to the pilot.

Pilot

Following implementation of the recommended changes from the expert panel, the FSEBS underwent a pilot test at the U.S. Army Management Staff College (AMSC). The Dean of Academics authorized the pilot on June 30, 2010 (see Appendix E). The faculty (n =57) at AMSC resembled, as closely as possible, the faculty at the CGSS in terms of demographics. The pilot administration was online through the CGSC Inquisite software. Because the AMSC faculty population was small, the Dean of Academics had concerns regarding anonymity of the participants. Consequently, no demographic data collection took place in the pilot. Further details about the pilot appear later in this chapter.

Several individuals who participated in the pilot provided feedback by e-mail about several issues they noted with the instrument. There was one typographical error and at least two cases in which the "submit" option appeared to have failed. Because the "submit" option appeared to work on the survey test versions, it was not clear why a problem arose with the pilot survey. This problem could have affected the response rate, in that some participants might have exited without sending the survey to the database.

Follow-up with CGSC QAO determined that all submissions were successful, even though the submit option appeared unsuccessful. Following correction of the typographical error, the instrument was loaded into Inquisite, along with all the notification, follow-up, and survey closeout options.

Qualitative

The study used a semi-structured interview protocol consisting of nine open-ended questions with an average interview time estimated at 30 minutes. The mixed methods sequential explanatory design provided an opportunity to refine the interview questions.

Interview Development Procedures

The researcher developed an initial array of questions designed to solicit information about participant experiences facilitating discussion in the classroom. Other initial questions asked about classroom environment, preparation for discussion, facilitating discussion, drawing out student deployment or combat experiences, and thoughts about the institution's role in discussion teaching. Reflection on the theoretical basis for the study ensured the questions aligned with self-efficacy (Bandura, 1977, 1997), discussion teaching (Brookfield & Preskill, 2005; Isaacs, 1999), and a motivational learning environment (Wlodkowski, 2008).

Expert Panel Review

In addition to reflection on the theoretical constructs, the researcher asked the panel of experts who had participated in the Internet survey development process to review the interview questions. These individuals provided feedback about sentence structure and clarity. The questions underwent revision, including interview protocol updating.

Pilot

Three of the interviews were used as a pilot and helped refine the interview process. The pilot interviews identified the following items, resulting in changes to the procedures. Two Faculty of Color and one Caucasian faculty member participated in the protocol pilot. The first interview lasted 41 minutes. Since the researcher originally told participants that interviews would not last longer than 30 minutes, a watch set next to the microphone served as a timer. The digital recorder and the watch were in clear view of the participants.

On the day of the interview, the researcher contacted the participant to confirm the time and location of the interview. This step became necessary when the individual participating in the second interview forgot about the meeting and had to leave before the interview began. Participants received interview questions prior to the interview. Participants felt that having time to reflect on their experiences produced richer information and gave depth to the answers. One of the pilot participants felt restricted and slightly disoriented when he tried to think back on previous experiences. Sending the questions to the participants ahead of time gave them an opportunity to reflect on their practices in the classroom.

After the first interview, all the participants received an advance copy of the protocol. Participants seemed to be honest and candid when answering the protocol questions. The pilot process allowed testing of the transcription and member-check process. Additionally, the pilot provided an opportunity to use MAXQDA 10 to code data. After the interview, the researcher made field notes about the interview. Recorded initial thoughts about the interview proved to be an effective method for capturing the sense of the session and impression of the interview environment. Because the process was successful during the pilot, it followed all interviews. Downloading the interviews to a compact disk and removal from the digital recorder was a further step in ensuring security and confidentiality. A copy of the interview protocol is in Appendix F.

Sampling Procedures

Quantitative

The CGSC faculty (N =417) comprised the target population for quantitative data collection. The entire population was accessible via the Internet and e-mail. Consequently, no sampling procedures were necessary for administering the FSEBS to the CGSC faculty.

Qualitative

Creswell and Plano Clark (2007) stated that researchers purposefully select "individuals and sites that can provide the necessary information . . . Researchers intentionally select participants who have experience with the central phenomenon or the

key concept being explored" (p. 112). Morse (1991b) suggested that participants willing to participate in the interview process had to meet several selection criteria. He wrote that participants had to willingly participate, be able to provide information, and have experience with the phenomena.

The purposeful selection sampling method identified the individuals for the interviews. Those identified met the informational needs of the study (appropriateness) and had experience facilitating discussions in the small seminar classroom (knowledgeable). The individuals agreed to talk about their experiences (primary and secondary selection criteria or control). Finally, the participants provided saturation of the topic (information adequacy). The number of interviews recommended by Creswell and Plano Clark (2007) was 4 to 10. The current study included 13 interviews and included one that was submitted by e-mail. The interviews provided an adequate number to address the research questions and achieve saturation of the data.

One of the reasons for selecting the mixed methods sequential explanatory design was that phase one quantitative data collection allowed the researcher to identify participants for follow-up interviews in phase two. The data, along with the preset dimensions (independent variables and location), determined the purposeful sample matrix (Morse, 1991a). Procedures used for the purposeful selection of faculty members to participate in the Phase 2 are in Table 3.1. The matrix in Table 3.1 shows an ideal mix of interviews, accounting for demographic variables at all CGSS campus locations. The matrix required adjustment, depending on how many individuals agreed to the interviews. The bridge between the study phases one and two allowed

- Review of quantitative data analysis to determine unique instances that justified further investigation,
- Adequate coverage of all CGSC campus locations,
- Assurance of representation of participants for all independent variables,
- Contact of individuals to invite interview participation.

The qualitative sample selection process had a significant effect on the quality of study, and ultimately, the quality of the product. In this study, the purposeful sample was a "calculated decision to sample a specific locale according to a pre-conceived but

reasonable initial set of dimensions (such as time, space, identity, or power) which were worked out in advance of the study" (Coyne, 1997, p. 624). The primary location for the interviews was the CGSC main campus at Fort Leavenworth, Kansas. One individual from a satellite campus agreed to participate in an interview but only by e-mail. The individual did not want the satellite campus location revealed in the study.

Table 3.1. ***Purposeful Sample Participant Demographics***

Location	Main Campus = 9		Satellite Campuses = 4	
Gender	Male = 6	Female = 3	Male = 2	Female = 2
Degree	Doctorate = 1 ABD = 1 Masters = 4	Doctorate = 1 ABD = 1 Masters = 1	ABD = 1 Masters = 1	ABD = 1 Masters = 1
Leader Position	Team Ldr = 1 SGA = 2	Team Ldr = 1 SGA = 1	Team Ldr = 1	SGA = 1
Title	Prof = 1 Assoc Prof = 1 Asst Prof = 2 Instr = 2	Assoc Prof = 1 Asst Prof = 1 Instr = 1	Assoc Prof = 1 Asst Prof = 1	Asst Prof = 1 Instr = 1
Age	55 older = 1 45-54 = 3 35-44 = 2	55 older = 1 45-54 = 1 35-44 = 1	45-54 = 1 35-44 = 1	45-54 = 1 35-44 = 1
Ethnicity	Caucasian = 4 Ethnic = 2	Caucasian = 2 Ethnic = 1	Caucasian = 1 Ethnic = 1	Caucasian = 1 Ethnic = 1

Data Collection Procedures

Quantitative

Data collection started with an e-mail notice or invitation, developed by the researcher and published by CGSC QAO, which alerted the participants about the survey. It provided a brief description of the research, instructions for completing the survey, access to the website, and telephone numbers that provided assistance with technology

issues. Research indicated that a pre-notice or invitation produced a higher response rate (Cook, Heath, & Thompson, 2000).

Technology standardization throughout CGSS provided a platform that ensured all respondents had access to the Internet site and an identical survey instrument, which reducing coverage bias errors (Crawford, Couper, & Lamias, 2001; Schonlau et al., 2002) and reduced the potential for non-response (Solomon, 2001; Schonlau et al., 2002). When participants accessed the website, a welcome screen provided the reason for the survey. Participants completed an acknowledgement form that emphasized participant rights, confidentiality, and security of archived data. Although Inquisite delinked participant identification from the responses, the software automatically tracked non-responses and sent a reminder notice.

Survey design allowed for a smooth flow among questions arranged in a user-friendly format. The design prevented question congestion and limited or eliminated forced answers. Participants had the option to save their responses and return later to their survey. When appropriate, automated skip processes sped up the survey response time and minimized survey weakness errors. A progress indicator bar assisted users with gauging time required for completing the survey, thereby reducing survey abandonment.

Follow-up e-mail notices helped mitigate data quality errors due to low or non-response rates. Confidentiality of responses, user identity, and security of the database provided an environment for honest answers to the survey questions. A 5-point Likert-type scale reduced the number of incomplete responses. Inquisite reduced data transcription errors through direct transfer of participant responses to the SPSS (19.0) database without manual transcription. This feature reduced the potential of random errors caused by missing or inaccurate data entry. However, all data transfer was verified for accuracy.

After participants completed the survey, they reviewed their responses and then submitted them. After submitting the responses, participants received a survey acknowledgement, along with a point of contact reminder. Participants received a telephonic point of contact if they had questions about the survey. Delinked participant identification information from the survey results ensured confidentiality. The CGSC

Department of Quality Assurance archived the survey results and provided a digital copy of the data to the researcher for analysis.

Qualitative

Refinement of the qualitative in-depth interview questions and the purposefully selected participant matrix for phase two of the research followed the quantitative data analysis in phase one. The one-on-one interviews used a protocol approved by Kansas State University and the U.S. Army Command and General Staff College. Interviews were approximately 30 to 45 minutes in length. The researcher used field notes to record the interview context and digitally recorded the interviews. Accuracy of the notes and recordings directly affected reliability of the data in terms of consistency, stability, and repeatability. Consistency pertained to the explanatory rationale of a single topic within one interview session. Analysis of participant responses to identical questions helped establish stability. Finally, the documentation provided reference material useful for future replications of the study.

The interview protocol contained the main interview questions, with probing questions used for purposes of clarity and detail. Participants read and signed an acknowledgement form that provided information about the purpose of the interview, use of the data, confidentiality of the participant, security of the data, and consent for the interview. The acknowledgement contained information about how to contact individuals at Kansas State University if participants had problems or questions.

Faculty who agreed to participate in the interview process received e-mails with a selection of dates and times for the interviews. Follow up e-mails and telephone calls confirmed the dates and times of the interviews. Two faculty members, one from the main campus and the one from the satellite campus, requested participation in the interviews by telephone or by providing written responses to the interview questions via e-mail. Eventually, the individual from the main campus dropped out of the interview process.

Two days prior to the interview, faculty participants received reminders of the date and time along with an advance copy of the interview questions. One of the faculty who participated in the pilot suggested that participants provided richer data if they

received the interview questions in advance. This faculty member reasoned that individuals provided clearer explanations if they had time to think through their classroom teaching and facilitation experiences prior to the interview.

Interviews took place in the participant's office or in another location the participant selected. If the location was other than the participant's office, the site selection helped to reduce noise or interruptions from other staff and faculty. Additionally, some participants desired privacy so the public could not hear their comments. A digital voice recorder with universal serial bus (USB) port connection capability recorded all interviews. The choice of digital recorder with the USB capability allowed for download of the interview file into a computer for further processing.

Prior to starting the interviews, participants completed the interview acknowledgement form. All participants were reassured that their comments or the interviews would not become public and their identity would remain confidential. The researcher described the interview process, the purpose of the digital recording, and the procedures for transcribing the interview from the recording to a document.

During the interview, follow-up questions provided clarity when the response to the primary question appeared vague. The time limit for the interviews was approximately 30 to 45 minutes. When the interview was completed, the researcher asked if the participant had additional comments. Participants were reminded that they would receive a transcript of their individual interview so they could review and edit their comments. They were informed they would receive an Internet link so they could read the completed research project.

Data Analysis Procedures

Reliability and Validity

The FSEBS indirectly measured the beliefs that faculty had about their capability to facilitate discussion in the classroom. Consequently, problems could have arisen with reliability and validity, according to Frankfort-Nachimas and Nachimas (2000). This researcher considered the reliability as well as validity of the FSEBS instrument.

Reliability

Reliability referred to the consistency of a measuring instrument as "the extent to which a measuring instrument contains variable errors" (Frankfort-Nachimas & Nachimas, 2000, p. 154). In the social sciences, questions indirectly measured attitudes, perceptions, beliefs, and so on. Thus, the number of errors in social science research tended to be greater. For instance, momentary distractions, computer technical difficulties, or misunderstanding the questions introduced variable measurement errors. Social science researchers often used Likert-type scaling for measuring attitudes and beliefs (Frankfort-Nachimas & Nachimas, 2000). For the present study, a 5-point Likert-type scale was used to express, in discrete terms, the underlying concept of self-efficacy beliefs and to enable analysis using SPSS (19.0) statistical software. Cronbach's alpha measured the FSEBS reliability. This method requires only one administration of the instrument for an estimate of the reliability. Gleim and Gleim (2003) referred to George and Mallery's book regarding rules of thumb that interpreted the Cronbach's alpha. These rules of interpretation stated that $\alpha > .9$ was excellent, $\alpha > .8$ was good, and $\alpha > .7$ was acceptable. Hinton, Brownlow, McMurray, and Cozens (2004) suggested that $\alpha = .75$ was an appropriate benchmark.

Cronbach's alpha was first calculated for the AMSC pilot with a value of $\alpha = .972$. AMSC pilot valid cases were 23 (65.7%) and listwise deleted cases were 12 (34.3%), with total cases at 35 (100%). A value of $\alpha = .961$ emerged for the CGSC survey with 150 valid cases (93.2%) and listwise deleted cases as 11 (6.8%), with total cases at 161 (100%). The Cronbach alpha for the AMSC pilot and CGSC surveys indicated the FEBS had sufficient internal consistency to be a reliable instrument for use in the study, given the $\alpha > .90$ (excellent) threshold.

Validity

The term validity referred to what the FSEBS measured and whether the instrument measured what it intended to measure. From the previous section on reliability, social science research indirectly measured abstract concepts. So, as with reliability, the possibility existed that the instrument did not measure the variables for which it was designed (Frankfort-Nachimas & Nachimas, 2000). One way to increase

validity of the FSEBS was to ensure the questions reflected the underlying concept of self-efficacy. The section about theoretical constructs supporting the FSEBS instrument in Chapter 2, as well as the instrument development procedures described earlier in this chapter, included a summation of the extensive work Dellinger (2001) reported in her development of the original instrument. In addition, numerous other articles identified throughout this study supported the selection of Dellinger's instrument as the basis for the FSEBS.

Survey Pilot: Army Management Staff College

After closing the survey, the CGSC QAO provided the raw data responses without participant identification information to the researcher. A Microsoft Excel spreadsheet compatible with SPSS (19.0) was the repository for formatting the raw data. The original intent was to use the SPSS data reduction (factor analysis) option to extract factors from the pilot study data. However, the number of participants (n = 35) responding to the pilot study was insufficient for the factor analysis. No further data analysis took place from the pilot study, other than the test for reliability.

Survey: U.S. Army Command and General Staff College

Survey Administration

Procedures for the CGSS survey paralleled the process used for the pilot survey. Faculty members received a notice inviting them to participate in the faculty self-efficacy beliefs survey (FSEBS). Three days after receipt of the notice, faculty received the link to the CGSC survey site via an e-mail from the Inquisite program. Faculty received instructions for participation in the survey that included assurance of protection of human subjects and research approval. After the survey closed, several technical problems emerged. These problems resulted in the loss of quantitative data from 10 survey questions. The researcher reviewed the survey instrument with CGSC QAO to determine the reason for the dropped page, but Inquisite appeared to have functioned properly and the cause of the problem remained undetermined. The solution was to reissue the survey and to discard all data from the original survey.

After the technical review was complete, all CGSS faculty received a second notice explaining the problem and inviting them to complete another survey. A separate e-mail contained the survey link. Again, Inquisite software tracked non-responses and automatically sent reminders to those faculty. Unresponsive faculty received three reminders and, after 14 days, the survey site closed. Both quantitative and qualitative data from the open-ended survey question were useable and retained for analysis.

Statistical Analysis Procedures

The SPSS (19.0) software was used for the statistical analysis of quantitative data collected by the Inquisite survey. Data analysis included the Cronbach's alpha for determining instrument reliability. Other tests included the Kolmogorov-Smirnov and the Shapiro-Wilkes procedures that determined normality of the data. The Levene and Brown-Forsythe procedures verified homogeneity of variance. The tests indicated the data were normal and had homogeneous variance among groups; consequently, the one-way independent analysis of variance (ANOVA) established whether the relationships between the dependent variable, self-efficacy beliefs, and the independent factors produced statistically significant differences. The post hoc Game-Howell test accurately determined which sub-factors contributed to the significance when population sizes were significantly different, whereas other post hoc tests were less reliable under those conditions.

Qualitative

Qualitative Data Analysis

Data analysis included the following steps: transcription, member checking, independent coding, researcher coding using *MAXQDA 10,* and reflection. Reflection included constant comparison of the interview environment, journaled thoughts, literature review, and quantitative data. The data analysis steps previously described and shown in Figure 3.1 provided input for reflection and refinement of the emerging themes. This process also allowed for triangulation of data to improve accuracy and reduce researcher bias.

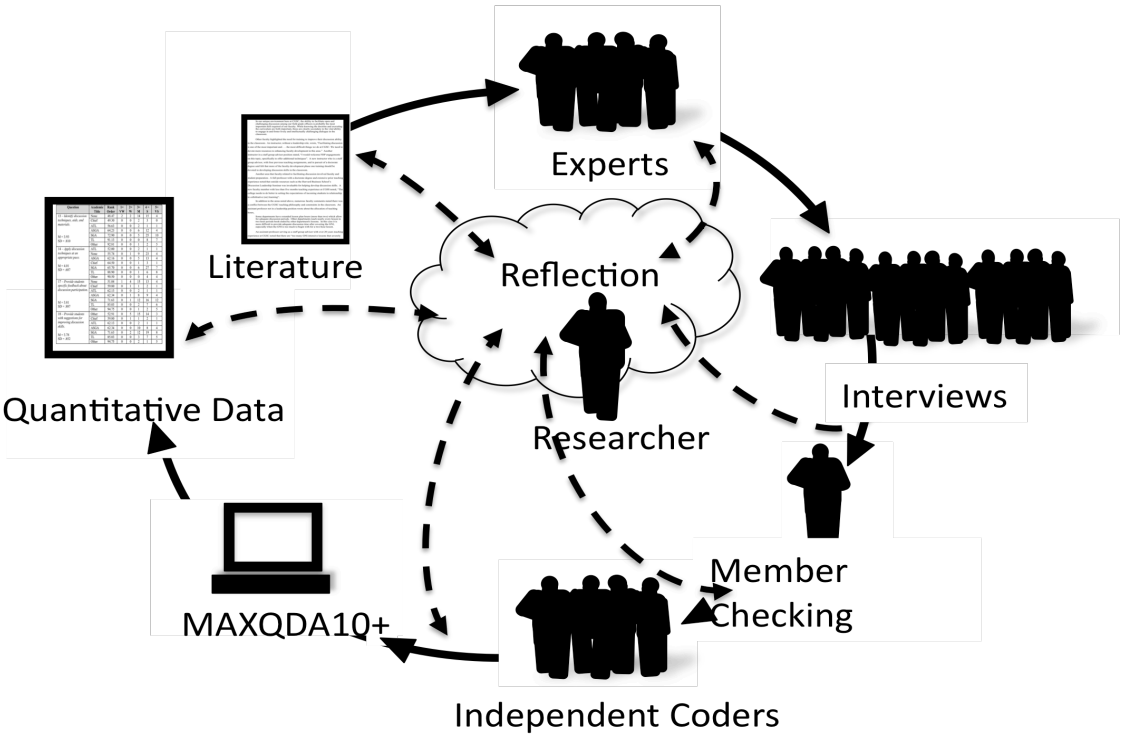

Figure 3.1. Constant comparison analysis process of qualitative data

Data Transcription and Member Checking

After completion of the interviews, the recorded data underwent transfer from the portable digital recorders to computer disks. An independent legal transcriptionist transcribed the data from the digital recordings to Microsoft Word documents. The transcriptionist signed a non-disclosure agreement, since all the recordings included participant identification data. Following completion of the transcription, participants received the Word documents for member checking. Participants responded to requests to review the contents of the transcripts and make changes or revisions that more clearly reflected their viewpoints. The majority of the participants elected to make no changes. Two individuals added words for clarification of their viewpoints but did not change the substance of the paragraphs in the transcript. One individual declined to review his interview comments.

Rationale for Using a CAQDAS Program

Qualitative data analysis involved a computer assisted qualitative data analysis software (CAQDAS) program called MAXQDA 10+ for sorting, categorizing, and coding transcript contents. Use of MAXQDA10+ program entailed training prior to use. Online training programs at http://www.maxqda.com provided sufficient information for importing transcripts, analyzing the data, and exporting the analysis results.

The researcher noted several warnings about using a CAQDAS program. The CAQDAS reflected subjective coding structures that "only have as much validity as the correspondence between the codes and the underlying data" (Margerum-Leys, Kupperman, & Boyle-Heimann, 1999, p. 12). Potentially, this researcher faced two types of errors when coding qualitative data. The first error type involved potential researcher bias wherein the researcher could select data for inclusion or exclusion from analysis. Mitigating this type of error required use of an independent expert review of the codebook rules prior to beginning data analysis. Another problem was that random errors could occur if data were missing, miscoded, or misinterpreted. Mitigating this type of error required a second coding by someone other than the researcher. However, taking the steps to mitigate these types of errors allowed the researcher to proceed with using MAXQDA10+ for coding transcript data.

The underlying rationale for using MAXQDA10+ were its numerous features that included organization of memos and field notes transcribed directly into MAXQDA10 and preparation of data visualization charts of various types to show relational patterns among multiple documents. Additional benefits included set up of variables for data export into SPSS to conduct quantitative analysis, the addition of software packages for limited quantitative analysis within MAXQDA10+, and lexical searches. Given the numerous features and easy recall of memos, field notes, and coded transcript data, this researcher felt the program aided in the analysis of the data.

Codebook Development

A qualitative analysis audit trail provided for reliability through consistency in observing, recording, and interpreting the data. The audit trail consisted of a codebook (Appendix L) based on the major categories of information identified during the quantitative analysis. The codebook and sub-code categories (factors) underwent further

refinement during reflection of data retrieved from the open-ended question at the end of the quantitative survey.

The independent coders received the codebook prior to starting the transcript coding. The researcher met with each coder, explained the purpose of the independent coding, and asked the members to reflect on the coding process and provide recommended changes to the code structure. This iterative reciprocal process of observation, analysis, reflection by independent coders and the researcher brought clarity to the qualitative data analysis process. The independent coders clarified several categories in the codebook. Their input helped refine the codebook structure.

Independent Coding and Researcher Coding Process

A panel of four independent coders assisted in conducting initial transcript coding. Each coder signed a non-disclosure agreement. Coders received a copy of the codebook and instructions for the coding process for annotating their comments in the transcripts. All coders received copies of the transcripts that had all personal identification data redacted. Coders were to write their thoughts about what they read and apply the code structure to identify themes and concepts. When completed, coders returned the coded transcripts to the researcher, where they provided a basis for coding in MAXQDA10. Coder notes were entered into the coding program as memos. The results of the independent coding identified themes that paralleled those discovered during the processing of the data from the open-ended question in the survey.

The researcher coded all transcripts using the MAXQDA10+ software program prior to reviewing the independent coder work. This parallel process mitigated researcher bias, as previously described in this section. Chapter 4 will provide additional description of the data analysis findings.

Interview Participants' Sketches

This section provides short descriptions of the 12 individuals who participated in the semi-structured interview process and the 1 individual who provided written responses to the interview questions. All participants who volunteered for the interviews were from the CGSC main campus at Fort Leavenworth, Kansas. No faculty from satellite campuses volunteered for interviews. However, one individual, Jennifer,

provided an e-mail response to the interview questions. Assigned pseudonyms protected confidentiality of the participants.

Gerald. Gerald was in his late 40s. He had taught at CGSC for over 13 years and was pursuing his doctorate degree in education. Gerald agreed to conduct the interview and preferred to meet in his office. He shared his office with another instructor who was present for the interview. Computer equipment, printers, and books created a cramped environment in Gerald's office. Several times during the interview, the other faculty member's phone rang and the individual left the office. These interruptions briefly distracted Gerald from answering the questions. Gerald seemed honest and forthright with his answers. He was candid about his failings in facilitating discussion and attributed those failures to his lack of understanding about creating motivating learning environments. He admitted to being faculty-centric, but over the years, opened up to discussion teaching.

Don. Don was in his early 50s and had taught at CGSC since retiring from the military in 2007, approximately six years ago. He had a master's degree and was not pursuing further education. Don agreed to meet in the office he shared with three other faculty members. After my arrival, Don moved the interview to a conference room. Don seemed a bit more guarded in his responses, although he was honest and candid in his answers. No interruptions occurred during the interview.

Erin. Erin was a female faculty member who asked that her department affiliation not be present in the study. She was about 55 years of age and had been teaching at CGSC for almost 15 years. She was taking coursework for an education doctorate through an online program. The interview took place in Erin's office and no interruptions occurred. She highlighted several institution responsibilities, such as faculty development, curriculum development, and faculty assessment as important areas for developing faculty skills in discussion teaching. Erin was open about discussing her failures and successes with discussion teaching.

Kurt. Kurt joined CGSC approximately two years ago. He had a master's degree and intended to pursue a doctorate degree. Kurt was eager to be a participant and e-mailed me after he took the survey. Kurt was in his early 40s and had an infectious enthusiasm for teaching and talking about his experiences in the classroom. He readily

admitted he was not always successful with discussion teaching, but he exuded confidence in his capability to facilitate discussion. Although Kurt shared an office with other instructors, the interview had no interruptions.

Chris. Chris was a male faculty member in his early 60s and had been teaching at CGSC for approximately seven years. He had a doctorate degree. We met in Chris's office, and upon my arrival, he offered a cup of coffee, since the meeting was early in the morning. Chris was a strong advocate of student-centric learning and believed that discussion teaching was the most effective means for instilling critical thinking skills in the students. We spoke for about 35 minutes and Chris was candid about the problems he felt the institution needed to address regarding student-centric learning. Among his greatest concerns were the instability of the curriculum, frequent guest speakers that interrupted teaching in the classrooms, and what he felt was a lack of attention to developing student-centric lesson plans. At the end of the interview, Chris declined to member check his transcript.

Bob. Bob was energetic and thoughtful, was about 50 years old, had been teaching at CGSC for six years, and was pursuing his doctorate degree. Initially, Bob agreed to meet in his office, but noise from the hallway forced a move to a conference room. Bob was open about his failures and successes with discussion teaching. He believed faculty needed to retain some control of the classroom in order to meet the learning objectives, but he advocated student-centric teaching methods. The interview lasted over 45 minutes, but Bob wanted to ensure he had adequately answered the interview questions.

Rod. Rod was a Team Leader, meaning he had responsibility for 12 faculty members. Rod did not want his department affiliation reported in the study. He was in his early 50s and had taught at CGSC for almost eight years. He had a doctorate degree. The interview took place in Rod's office. He did not share the office with other instructors, so there were no interruptions. Rod was adamant that faculty members needed to deploy overseas in order to have credibility in the classroom. He enthusiastically supported student-centric teaching, such as discussion. He admitted that early in his teaching career, he had failed the students through misplaced enthusiasm.

Over the years, he admitted that he tempered his teaching methods and now partnered with the students for delivery of the lessons.

Jim. Jim was a faculty member at CGSC, was about 50 years of age, and had taught at CGSC for over 10 years. Jim did not want to have details about his identity provided in the study. The interview with Jim took place in a conference room, not his office. There were no interruptions during the interview. Jim, like many of the faculty interviewed, shared his success and failures with discussion teaching. He was an adjunct faculty member, which meant that he taught faculty development classes.

Kyle. Kyle was in his mid-50s, had taught for six years, and was taking coursework for his doctorate degree. The initial interview with Kyle had to be rescheduled. Although the second meeting site was his office, he moved the interview to a conference room for privacy. No interruptions occurred.

Jeanette. Jeanette was in her late 40s and had taught at CGSC for almost seven years. The interview took place in her office. At first, Jeanette was hesitant. But, after a few minutes, she opened up and shared her journey with discussion teaching.

Daniel. Daniel was in his early 40s and was new to teaching at CGSC. He held a master's degree and was pursuing a doctorate degree. The interview took place in his office, but because it was late afternoon, the other faculty members had already departed for the day and no interruptions took place.

Darrell. Darrell was about 55 years old and had taught at CGSC for over five years. He was also pursuing a doctorate degree. Although the interview was originally to take place in his office, the location moved to a conference room because of noise. Darrell had a good sense of humor and readily laughed about his experiences with discussion teaching. He advocated student-centric learning and partnering with students to deliver the lesson plans.

Jennifer. The final participant was Jennifer, who taught at a satellite campus. Jennifer originally planned to travel to Fort Leavenworth to attend a meeting, at which time she wanted to meet for the interview. Cancellation of her trip and commitments at the satellite campus prevented meeting in person. She did not want to complete the interview by telephone, but agreed to respond to the interview questions through e-mail.

Summary of Chapter 3

Chapter 3 provided an overview about the methodology of this study based on a mixed methods sequential explanatory design. This type of design provided a holistic view of the research problem. Qualitative data established the context for quantitative data. This chapter included discussion of the steps used to mitigate the potential threats to the study's validity and reliability. Chapter 4 contains the findings from the data analysis.

CHAPTER 4 - Findings

Introduction

Chapter 4 provides analysis results from the quantitative survey of the U.S. Army Command and General Staff College faculty ($N = 417$; $n = 161$) and qualitative interviews of ($n = 13$) purposefully selected faculty. The quantitative results described the demographic characteristics of the participants and answered the primary quantitative research question: "What are faculty self-efficacy beliefs about their capability to facilitate discussion in small group seminars?" Chapter 4 contains the qualitative analysis results from faculty interviews. These interviews answered the primary qualitative research question: "How do faculty perceive themselves as facilitators of discussion in the classroom?"

Quantitative Survey Findings

Survey Response Rate

This section addresses the survey response rates for the U.S. Army Management Staff College (AMSC) pilot and the U.S. Army Command and General Staff College (CGSC) survey. The original estimate of faculty ($N = 417$) came from the U.S. Army Command and General Staff College accreditation data. Table 4.1 shows available faculty for the AMSC pilot and CGSC survey and the response rates. Survey technical problems affected the CGSC faculty response rate, as mentioned in Chapter 3. The initial survey response rate of $n = 201$ (51.5%) decreased to $n = 161$ (38.61%) as shown in Table 4.1. Sending the second survey to CGSC faculty caused a 20% ($n = 40$) drop in participant response rate.

Table 4.1. ***AMSC Pilot and CGSC Response Rates***

	Faculty Member			
	Availability	%	Responses	%
AMSC Faculty Total (Pilot)[a]	57	100		
AMSC Faculty Not Available[b]	1	1.8		
AMSC Faculty Available	56	98.2	35	62.5
CGSC Faculty Total[c]	417	100		
CGSC Faculty Not Available[d]				
No Longer Teaching	2	< 1.0		
Temporary Duty	4	< 1.0		
Invalid E-mail Address[e]	21	5.0		
CGSC Faculty Available	390	94.0	201[f]	51.5
			161[g]	41.3

Note. [a] Total AMSC faculty numbers from faculty directory. [b]Faculty member notified researcher of unavailability. [c]Total faculty numbers provided by the CGSC QAO based on 2009 accreditation data. [d] Faculty deployed or at a location where they were unable to access the Internet to take the survey. [e] Faculty e-mail addresses obtained from the CGSC e-mail directory with invalid e-mails identified by failed mail notices. [f] Faculty responses for the first survey administration. [g] Faculty responses for the second survey administration.

Demographic Data Analysis

Description of CGSS Faculty Based on the Results of the Descriptive Statistics

Descriptive statistics used to analyze the participants' responses to the demographic questions provided a portrait of a typical CGSC faculty member. Table 4.2 consolidates the self-reported faculty personal demographics of gender, age, and ethnicity. Table 4.3 consolidates the self-reported faculty employment demographics of education level, teaching experience, academic title, and leadership position. Both tables provide the population, number of responses and the responses for each demographic variable as a percent of the total. Some participants elected not to respond to one or more demographic questions; the term *no responses* indicated this. The researcher marked vague responses, meaning those that could have fit under multiple categories, as

indeterminate and included a footnote to the tables, along with the participant's specific terminology.

The typical faculty member, a white male, 51 years of age, had taught at CGSC for five years and nine months. The CGSS faculty member was a full-time civilian (Title X) employee or military officer in the rank of major or lieutenant colonel. Among civilian colleges and universities, the number of part-time faculty had steadily increased and the number of full-time tenured faculty had decreased (Ramirez-Garcia, 2005). This was not the case for faculty at the CGSC. The typical faculty member at CGSC was untenured but employed full time. Civilian faculty at CGSC had to reapply every two or three years to renew their employment contracts. Military personnel typically moved to new assignments after 24 to 36 months.

Most faculty members had one or more advanced degrees (master's or doctorate), and had some prior teaching experience in military or civilian higher education institutions. The typical faculty member had an academic title of associate professor and in addition to teaching duties, had leadership responsibilities such as that of Staff Group Advisor. Tables 4.2 and 4.3 provide more details about the CGSC faculty demographics.

Table 4.2. CGSC Faculty Personal Variables Responses

Category	*n*	%
Total Faculty Responding	161	100
Gender		
Male	151	93.8
Female	9	5.6
No Response[a]	1	.6
Age[e]		
35–39	6	3.7
40–44	17	10.6
45–49	39	24.2
50–54	43	26.7
55–59	27	16.8
60 +	22	13.6
No Response[a]	5	3.2
Indeteterminate[b]	2	1.2
Ethnicity / Race		
Caucasian[c]	126	78.3
African–American[d]	5	3.1
Native American	3	1.9
Asian	1	.6
Hispanic	1	.6
No Response[a]	10	6.2
Indeterminate[e]	15	9.3

Note: [a] Item left blank. [b] Age reported as 50+. [c] Variations of spelling–c, cau, cauc, caucausion. Responses included White, Celtic, Polish, Anglo, and Scandinavian. [d] Responses included those who self-identified as Black. [e] Unclear responses included Fair, human, South American, and Texan. [e] Of the 154 participants who responded to this question, the ages ranged from 37 years to 67 years (M = 51.44, SD = 6.70).

Table 4.3. CGSC Faculty Employment Variables Responses

Category	*n*	%
Total Faculty Responding	161	100
Education Level		
Master's (one or more degrees)	104	64.6
Doctorate Course Work	23	14.3
ABD	7	4.3
Doctorate (one or more degrees)	27	16.8
Teaching Experience (No. Assignments)[b]		
1	87	54.0
2	40	24.9
3	16	9.9
4 or more	9	5.6
No Response[a]	9	5.6
Academic Title		
Instructor	40	24.8
Assistant Professor	89	55.4
Associate Professor	22	13.7
Professor	6	3.7
Other[c]	2	1.2
No Response[a]	2	1.2
Leadership Position[d]		
Staff Group Advisor	36	22.3
Asst Staff Group Advisor	22	13.7
Team Leader	13	8.1
Asst Team Leader	4	2.5
Committee Chief	1	.6
Other[e]	20	12.4
No Response[a]	65	40.4

Note: [a] Left blank. [b] Faculty selected one or more responses, choices were summed for each individual. [c] Includes Curriculum Developer and Faculty Advisor. [d] Faculty identified their titles that were categorized by the researcher. [e] Other responses included: 3H Planner, Block Author, Course Author, Chairman Quality of Life Committee, Deputy Director.

Tests for Normality and Homogeneity of Variance

Literature supported using a Likert-type scale to represent the underlying continuum of self-efficacy beliefs (Bandura, 1997, 2006a). Thus, the data gathered from the 5-point scale in the Faculty Self-Efficacy Beliefs Scale (FSEBS) represented faculty

self-efficacy beliefs. The FSEBS data passed four parametric criteria before undergoing the one-way independent analysis of variance (ANOVA). The criteria called for ratio or interval data, independent cases, normal data distributions, and homogeneity of variances. Data collected for this study met criteria one and two. However, testing for normality of distributions and homogeneity of variances was necessary. The test results indicated normal data distributions (Tables 4.4 and 4.5) and homogenous variances (Tables 4.6 and 4.7). The one-way ANOVA was appropriate to analyze FSEBS participants' mean scores for each of the independent variables. Tables 4.8 and 4.9 show ANOVA descriptive statistics and the 95% confidence intervals. Table 4.10 shows the ANOVA results.

This paragraph provides a short rationale for using the Kolmogorov-Smirnov (K-S) and Shapiro-Wilks (S-W) tests for normality of distributions as well as the Levene and Forsythe-Brown tests for homogeneity of variances. The FSEBS produced parametric, interval data necessary for the tests in this study. Researchers frequently used the K-S test for normality. The S-W had grown in popularity for a number of reasons, the most important being that it had greater accuracy for smaller samples, where $n < 50$. Levene and Brown-Forsyth also required parametric data, and researchers commonly used both tests for determining homogeneity of variance. However, the Levene test used sample means for its calculations; thus, outliers could affect the results. Additionally, the Levene test produced inaccurate results if the sample sizes differed significantly. The Brown-Forsythe test produced more reliable results because its calculations involved the median rather than the mean, making it less vulnerable to outliers. Brown-Forsythe was also more accurate when the size of *n* differed significantly between samples (Garson, 2011).

Tests for Normality

SPSS (19.0) had two options for calculating the Kolmogorov-Smirnov (K-S) and the Shapiro-Wilks (S-W) statistics. This study used the option in the *explore* tab. The K-S test compared single sample parametric (interval) data from the FSEBS to a normal distribution. The α was set at 0.05, meaning that any $p < 0.05$ would indicate normally distributed data, with 95% confidence. Likewise, any $p > .05$ would mean not normally distributed data. In addition to the K-S test, the S-W statistic tested the same data with $\alpha = 0.05$ as previously explained. Kolmogorov- Smirnov results indicated no significant

difference between FSEBS and a normal distribution, where $p > 0.05$. The S-W test produced similar results in that responses did not differ significantly from a normal distribution.

Results of the K-S and the S-W tests for the factors of faculty personal demographics are in Table 4.4. The S-W test for gender sub-category male indicated a significant difference of $p = .035$. The K-S test did not indicate significance. The categories of gender (no response), age (indeterminate), and ethnicity (Asian and Hispanic) generated no data. Although the subcategory age (indeterminate) returned data, SPSS could not calculate the significance level due to the low number of data points.

Table 4.4. Tests for Data Normality–Gender, Age, and Ethnicity

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Categories	*D*	*df*	*p*	*W*	*df*	*p*
Gender						
Male	.053	151	.200*	.981	151	.035
Female	.235	9	.101	.903	9	.271
No Response	-	-	-	-	-	-
Age						
35–39	.203	6	.200*	.924	6	.532
40–44	.180	17	.145	.917	17	.130
45–49	.099	39	.200*	.964	39	.236
50–54	.080	41	.200*	.970	41	.342
54–59	.099	28	.200*	.963	28	.413
60+	.099	22	.200*	.969	22	.695
No Response	.231	6	.200*	.926	6	.552
Indeterminate	.260	2	-	-	-	-
Ethnicity						
Caucasian	.053	126	.200*	.982	126	.083
African American	.213	5	.200*	.921	5	.538
Native American	.222	3	-	.985	3	.769
Asian	-	-	-	-	-	-
Hispanic	-	-	-	-	-	-
No Response	.181	10	.200*	.920	10	.353
Indeterminate	.186	16	.143	.938	16	.328

[a] Lillefors significant correction, * Lower bound for the true significance

Table 4.5 displays the results of the K-S and the S-W tests for the independent variables of education, teaching experience, academic title, and leadership position. The S-W test for the subcategory leadership position (other) indicated a significant difference (p = .021). The K-S test did not return a significant result for that particular sub-category. No results were returned for subcategories academic title (other) and (no response), as well as the K-S test for leadership position (assistant team leader) due to the low number of data points in each sub-category.

Table 4.5. Tests for Data Normality: Education, Teaching Experience, Academic Title, and Leadership Position

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
Factors	*D*	*df*	*p*	*W*	*df*	*p*
Education						
Masters	.045	104	.200*	.980	104	.248
Doctorate (Courses)	.165	23	.103	.956	23	.391
ABD	.159	7	.200*	.916	7	.435
Doctorate	.108	27	.200*	.960	27	.374
Teaching Experience						
1 Assignment	.082	81	.200*	.999	81	.202
2 Assignments	.109	45	.200*	.954	45	.074
3 Assignments	.084	16	.200*	.990	16	.999
4 Assignments+	.193	10	.200*	.895	10	.193
No Response	.255	9	.094	.839	9	.056
Academic Title						
Instructor	.080	40	.200*	.969	40	.344
Assistant Professor	.064	89	.200*	.983	89	.296
Associate Professor	.134	22	.200*	.950	22	.321
Professor	.275	6	.175	.881	6	.273
Other	-	-	-	-	-	-
No Response	-	-	-	-	-	-
Leadership Position						
Staff Group Advisor	.112	37	.200*	.967	37	.339
Assist Staff Grp Advisor	.183	20	.078	.930	20	.154
Team Leader	.139	14	.200*	.962	14	.750
Assist Team Leader	.193	3	-	.997	3	.890
Committee Chief	.309	6	.075	.882	6	.279
Other	.263	9	.073	.802	9	.021
No Response	.077	72	.200*	.980	72	.290

[a] Lillefors significant correction, * Lower bound for the true significance

Tests for Homogeneity of Variance

The Levene and the Brown-Forsythe tests did not indicate any significance for the homogeneity of variance. The results of the Levene and the Brown-Forsythe tests are in Table 4.6. Although the factor leadership position was not statistically significant at $p < .05$ for the Levene test, the Brown-Forsythe test indicated a difference.

Table 4.6. ***Tests for Homogeneity of Variance***

	Levene				Brown-Forsythe			
Factor	*D*	*df1*	*df2*	*p*	F^a	*df1*	*df2*	*p*
Gender	0.00	1	158	.995	.04	1	9.03	.843
Age	1.13	7	153	.350	.49	7	82.59	.839
Ethnicity[c]	0.14[b]	4	155	.968	-	-	-	-
Education Level	2.62	3	157	.052	1.39	3	16.69	.280
Teaching Exp	1.66	3	148	.178	2.31	3	75.35	.084
Academic Title	0.88	5	155	.499	1.48	5	7.68	.278
Leadership Posn	1.73	6	154	.117	2.98	6	60.29	.013

[a] Asymptotically *F* distributed, [b] Groups with only one case were ignored in computing the test of homogeneity of variance for independent scores, [c] For the Brown-Forsythe test, robust tests of equality of means cannot be performed for independent scores because at least one group has the sum of case weights less than or equal to 1.

In summary, the overall results of the normality tests showed the distribution of data did not differ significantly from a normal distribution for all factors, with the exceptions already noted above. Next, the tests for homogeneity of variance showed the variances between groups were not significantly different except for the Brown-Forsythe test of the independent variable leadership position. Table 4.7 summarizes the results for normality and homogeneity. Although three of the S-W tests indicated a significant difference for two subcategories involving normal distribution of data, the K-S tests returned no significance. Likewise, the Brown-Forsythe returned one subcategory test as significant for homogeneity of variance, while the Levene test did not.

In the case of the subcategory gender male, the repetitive scores might have affected the S-W test for normality, as might be the case for age. Likewise, the S-W test indicated significance for the subcategory leadership position other for $n = 20$ responses. Next, the Brown-Forsythe test of homogeneity of variance for the leadership position indicated significance, whereas the Levene test did not. Although some indicators of

significance existed within the tests for normality and homogeneity, this researcher did not believe they warranted using the less powerful, non-parametric Kruskal-Wallis (K-W *H*) for data analysis.

Table 4.7. Summary of Tests for Normality and Homogeneity of Variance

	Normality		Homogeneity		Conduct
Factor	Kolmogorov-Smirnov	Shapiro-Wilk	Levene	Brown-Forsythe	ANOVA
Gender	Yes	No	Yes	Yes	Yes
Age	Yes	Yes	Yes	Yes	Yes
Ethnicity	Yes	Yes	Yes	Yes	Yes
Education Level	Yes	Yes	Yes	Yes	Yes
Teaching Exp	Yes	Yes	Yes	Yes	Yes
Academic Title	Yes	Yes	Yes	Yes	Yes
Leadership Posn	Yes	No	Yes	No	Yes

One-Way Analysis of Variance (ANOVA)

Quantitative Primary and Secondary Questions

Quantitative data analysis focused on the research question, "What are the faculty self-efficacy beliefs about their capability to facilitate discussion in small group seminars?" Analysis of the primary question involved seven null hypotheses.

$H0_1$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable gender.

$H0_2$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable age.

$H0_3$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable ethnicity/race.

$H0_4$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable education level/degree.

$H0_5$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable teaching experience.

$H0_6$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable academic title.

$H0_7$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable leadership position.

Description of Individual Summed Scores for Survey Questions 1 through 30

Chapter 3 contained description of the summation of individual responses to the FSEBS. Individual summed scores had a possible range of 30 (very low faculty self-efficacy beliefs) to a maximum 150 (very high self-efficacy beliefs). Participants' scores ranged from 66 to 150 (n = 161, M = 121.59, SD = 16.12) as shown in Figure 4.1. The scores were normally distributed.

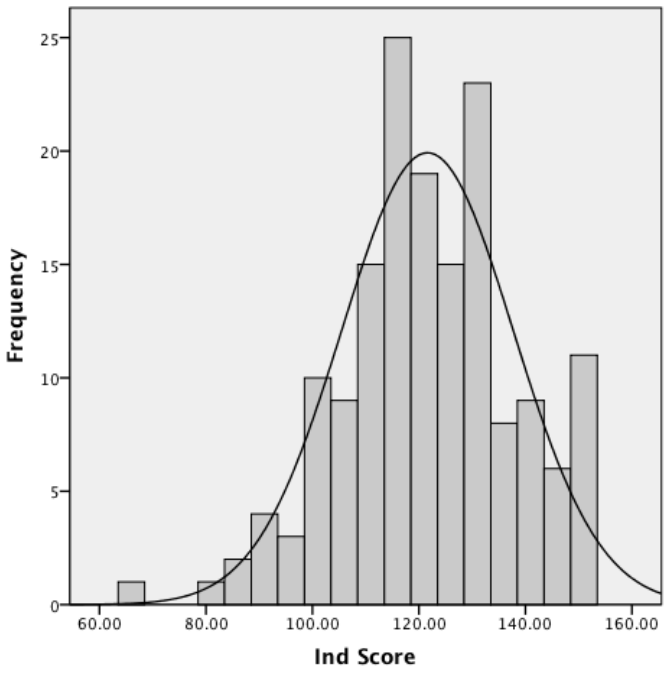

Figure 4.1. Individual score frequencies

One-Way Independent Analysis of Variance (ANOVA) Results

The one-way ANOVA calculation used summed individual scores. The one-way ANOVA produced a significant result for the independent variable leadership position. All ANOVA results appear in Tables 4.8 through 4.10. Tables 4.8 and 4.9 show the descriptive statistics as well as the lower and upper bounds for a .95 confidence interval. Table 4.10 has the one-way ANOVA results. The one-way ANOVA results indicated no statistically significant differences existed for the independent variables of gender, age, ethnicity, education level, academic title, and teaching experience. As stated, the ANOVA analysis returned a significant result for the independent variable of leadership position.

Table 4.8. One-Way ANOVA Descriptive Statistics for Gender, Age, and Ethnicity

Source	*N*	*M*	*SD*	95% CI for Mean	
				Lower	Upper
Gender					
Male	151	121.550	16.177	118.984	124.509
Female	9	130.444	15.804	108.296	132.593
NR[a]	1	139.000	-	-	-
Total	161	121.488	16.110	118.083	124.105
Age					
35-39	6	118.500	11.113	106.838	130.162
40-44	17	120.529	18.375	111.072	129.977
45-49	39	118.539	17.921	112.729	124.347
50-54	41	123.804	16.622	118.558	129.052
55-59	28	122.929	13.564	117.669	128.188
60+	22	122.136	15.839	115.113	129.159
NR[a]	6	124.000	16.236	106.962	141.038
Indeterminate[b]	2	122.500	2.121	103.441	141.559
Total	161	121.596	16.118	119.087	124.105
Ethnicity					
Caucasian[c]	125	121.032	15.969	118.216	123.847
African American[d]	5	126.000	18.000	103.650	148.350
Native American	3	110.667	19.140	63.120	158.213
Asian	1	118.000	-	-	-
Hispanic	1	121.000	-	-	-
NR[a]	10	126.900	4.767	116.117	137.683
Indeterminate[e]	16	123.625	4.455	114.129	133.121
Total	161	121.596	1.270	119.088	124.105

Note: [a] Item left blank. [b] Age reported as 50+ and Over 50. [c] Variations of spelling–c, cau, cauc, caucausion. Responses included–white, Celtic, Polish, Anglo, and Scandinavian. [d] Responses included those who self-identified as Black. [e] Unclear responses included fair, human, South American, and Texan.

Table 4.9. One-Way ANOVA Descriptive Statistics for Education Level, Academic Title, Teaching Experience, and Leadership Position

Source	*N*	*M*	*SD*	95% CI for Mean	
				Lower	Upper
Education Level					
Masters Degree	104	119.683	16.217	116.529	122.837
Doctorate Courses	23	122.391	11.750	117.310	127.472
ABD	7	124.714	24.864	101.718	147.410
Doctorate	27	127.482	15.609	121.307	133.656
Total	161	121.596	16.118	119.087	124.105
Title					
Instructor	40	119.900	18.139	114.098	125.701
Asst Professor	89	120.674	15.622	117.383	123.965
Assoc Professor	22	128.454	14.185	122.165	134.744
Professor	6	126.667	14.123	111.845	141.488
Other	2	111.500	.707	105.147	117.853
NR	2	116.000	19.799	-61.887	293.887
Total	161	121.596	16.118	119.087	124.105
Experience					
1 Assignment	81	120.049	15.056	116.543	123.556
2 Assignments	45	122.264	18.872	116.597	127.937
3 Assignments	16	121.625	11.534	115.479	127.771
4 Assignments	10	133.000	13.441	123.385	142.615
NR	9	119.444	8.705	112.753	126.123
Total	161	121.596	16.118	119.087	124.105
Leadership Position					
Staff Group Advisor	37	121.946	14.695	117.046	126.846
Asst Staff Group Advisor	20	121.150	13.911	114.639	127.660
Team Leader	14	132.071	10.956	125.769	138.374
Asst Team Leader	3	109.333	10.017	84.451	134.216
Committee Chief	6	118.333	11.843	105.904	130.762
Other	9	131.000	16.492	118.323	143.677
NR	72	119.111	17.679	114.957	123.265
Total	161	121.596	16.118	119.088	124.105

Results by Gender

$H0_1$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable gender. A one-way between-categories ANOVA (Table 4.10) compared the effect of gender on faculty self-efficacy beliefs. Gender had no significant effect on faculty self-efficacy beliefs at the $p < .05$ level, $F\ (1, 158) = .040$, $p = .842$. Results failed to reject the null.

Table 4.10. ***One-Way ANOVA Results***

Source	*SS*	*df*	*MS*	*F*	*p*
Gender					
Between Groups	10.375	1	10.375	.040	.842
Within Groups	41253.60	158	261.10		
Total	41263.98	159			
Age					
Between Groups	733.94	7	104.85	.393	.905
Within Groups	40834.82	153	266.19		
Total	41568.76	160			
Ethnicity					
Between Groups	855.57	5	171.11	.657	.661
Within Groups	40713.19	155	262.67		
Total	41568.76	160			
Education Level					
Between Groups	1398.58	3	466.19	1.822	.145
Within Groups	40170.18	157	255.86		
Total	41568.76	160			
Academic Title					
Between Groups	1646.32	5	329.26	1.278	.276
Within Groups	39922.44	155	257.56		
Total	41568.75	160			
Teaching Experience					
Between Groups	1512.04	3	504.01	1.893	.133
Within Groups	39406.35	148	266.26		
Total	40918.40	151			
Leadership Position					
Between Groups	3300.27	6	550.046	2.213	.045
Within Groups	38268.48	154	248.497		
Total	41568.76	160			

Results by Age

$H0_2$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable age. A one-way between-categories ANOVA (Table 4.10) compared the effect of age on faculty self-efficacy beliefs. There was no significant effect of age on faculty self-efficacy beliefs at the $p < .05$ level, F (7, 153) = .393, p = .905. Results failed to reject the null.

Results by Ethnicity/Race

$H0_3$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable race/ethnicity. A one-way between-categories ANOVA (Table 4.10) compared the effect of ethnicity/race on faculty self-efficacy beliefs. Ethnicity/Race had no significant effect on faculty self-efficacy beliefs at the $p < .05$ level, F (5, 155) = .065, p = .661. Results failed to reject the null.

Results by Education Level

$H0_4$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable education level (degree). A one-way between-categories ANOVA (Table 4.10) compared the effect of education level on faculty self-efficacy beliefs. Education level had no significant effect on faculty self-efficacy beliefs at the $p < .05$ level, F (3, 157) = 1.822, p = .145. Results failed to reject the null.

Results by Teaching Experience

$H0_5$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable teaching experience. A one-way between categories ANOVA (Table 4.10) compared the effect of teaching experience on faculty self-efficacy beliefs. Teaching experience had no significant effect on faculty self-efficacy beliefs at the $p < .05$ level, F (3, 148) = 1.893, p = .133. Results failed to reject the null.

Results by Academic Title

$H0_6$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable academic title/rank. A one-way between-categories ANOVA (Table 4.10) compared the effect of academic title on faculty self-efficacy beliefs. Academic title had no significant effect on faculty self-efficacy beliefs at the $p < .05$ level, F (5, 155) = 1.278, p = .276. Results failed to reject the null.

Results by Leadership Position

$H0_7$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating small group seminars and the independent variable leadership position. A one-way between-categories ANOVA (Table 4.10) compared the effect of leadership position on faculty self-efficacy beliefs. Leadership position had a significant effect on faculty self-efficacy beliefs at the $p < .05$ level, F (6, 154) = 2.213, p = .045. A post hoc comparison using the Games-Howell test, shown in Table 4.11, indicated the mean score difference of 12.960 and a standard error of 3.585 between the leadership position sub-categories team leader and no response had significance at the .018 level. No other comparisons were significant. Results rejected the null.

Table 4.11. Post Hoc Comparison for Leadership Position

Leadership Position (I)	Leadership Position (J)	Mean Diff (I-J)	*SE*	*p*	95% Confidence Interval	
					Lower	Upper
Team Leader	Staff Group Adv	10.125	3.788	.139	-1.790	22.041
	Asst Staff Group Adv	10.921	4.264	.173	-2.496	24.339
	Asst Team Leader	22.738	6.477	.186	-15.028	60.505
	Committee Chief	13.738	5.647	.287	-7.284	34.761
	Other	1.071	6.224	1.000	-20.552	22.695
	NR	12.960	3.584	.018	1.597	24.323

Results of the CGSS Survey Open Ended Question

The open-ended question at the end of the survey asked participants, "What other thoughts do you have regarding facilitating discussion in the seminar classroom?" Participants provided their responses in text format. An expert group reviewed and jointly coded a sanitized copy of the responses. The experts included one curriculum developer and three non-CGSC faculty members with extensive teaching experience. One group member possessed a doctorate degree. Each member of the group coded the responses and provided their individual results to the researcher. The researcher triangulated the data based on the results of the joint coding process, the literature review in Chapter 2, and researcher reflections. The overarching categories that emerged from the analysis process included classroom environment, discussion, and preparation (Figure

4.2). These themes correspond to Bandura's (1997) social cognitive theory, especially the model of triadic reciprocal causation (Figure 4.1).

Themes and Sub-Elements
Classroom Environment
Openness of the students and instructor
Establish safety and trust for students
Develop communication and active listening among all members
Build relationships with the students
Faculty fear punitive action based on student evaluations
Institution inhibits instructor flexibility in the classroom
Discussion
Faculty develop, practice, model facilitation skills
Develop critical thinking skills in faculty and students
Faculty acceptance of discussion as a teaching methodology
Faculty confidence in student ability to engage in discussion
Preparation
Lessons lack good critical thinking questions, which inhibits student learning
Lesson design hinders discussion
Unreasonable allocation of time for lessons across departments
Curriculum, as designed, hinders facilitation and creates stress
Lessons overuse PowerPoint, content-heavy
Adult learning model, as practiced by CGSC, is flawed
Instructors as subject matter experts and competent facilitators

Figure 4.2. Open-ended survey question themes

Qualitative Interview Findings

This section contains the findings for five themes that emerged from the qualitative interviews. These themes paralleled those identified from analysis of the FSEBS open-ended question: classroom environment, discussion teaching, preparation, questioning, and faculty/student experiences. Throughout the remainder of this chapter, "faculty" refers those who participated in the one-to-one qualitative interviews.

Theme One: Classroom Environment

Bandura's Imposed, Selected, and Constructed Environments

Bandura's (1997) social cognitive theory and the construct of self-efficacy provided an appropriate lens for looking at the classroom environment. Bandura stated the model of triadic reciprocal causation was the heart of social cognitive theory. This model identified three components including the environment, personal factors (cognitive, affective, and biological), and behavior that reciprocally interacted with one another and formed the basis of human functioning. Within the environment, Bandura (1997, 2001b) identified three operative environments that "take three different forms: those *imposed, selected, and created* [italics original]" (Bandura, 1997, p. 163). These environments are present in educational institutions.

Bandura wrote that school environments were often viewed as "massive undifferentiated entities" but, in actuality, teachers were "producers and products of microenvironments within the larger school milieu" (1997, p. 249). In general, the "exercise of personal agency over the direction one's life takes varies, depending on the nature and modifiability of the environment" (Bandura, 1997, p. 163). Bandura indicated, "These different forms of environment represent gradations of changeability requiring the exercise of increasing levels of personal agency" (2001b, p. 23). The next sections consider the operative environments affecting the self-efficacy beliefs of faculty within the CGSC classrooms.

Imposed Environment

The imposed CGSC environment included not only the physical structures but also the social structures. These structures affected faculty whether they wanted them to or not, often in adverse ways. Bandura (1997) referred to the Ashton and Webb (1986) study, which identified aspects of the imposed environment that faculty could not control, such as heavy workloads, how officials ran the institution, and bureaucratic practices. Bandura wrote, "In short, educational systems are strewn with conditions that can easily erode teachers' sense of efficacy and occupational satisfaction" (1997, p. 244). However, Bandura noted that rapid change in the workplace was the norm, and individuals, to include faculty, needed efficacious adaptability to deal with such change. "Employees who have cultivated diverse talents can handle such occupational transitions better than those who are skilled in only a few things" (Bandura, 1997, p. 448).

According to the faculty, the imposed environment at CGSC negatively affected their self-efficacy beliefs because of the demanding academic calendar, a frequently changing guest speaker schedule, and policies or procedures that restricted classroom flexibility. Additionally, faculty noted programs such as curriculum development, faculty development within the teaching departments, and faculty assessment created tremendous stress. All of them had punitive or negative aspects that adversely affected faculty self-efficacy beliefs. Faculty exerted little or no control over the imposed environment, "But they do have leeway in how they construe it and react to it. They can view it favorably, neutrally, or negatively, depending on how well it serves them" (Bandura, 1997, p. 163).

Some faculty indicated low self-efficacy about their capability to be flexible when the imposed environment frequently changed. For instance, Darrell sounded frustrated when he spoke about the frequent changes to the teaching schedule.

> One of the things that we are experiencing, and it seems to be getting worse rather than better over time, is trying to be flexible with the schedule. . . . It could be a function of the leadership lecture series. It impacts facilitator credibility, student preparation, as well as the actual execution of making sense of an integrated curriculum. That is the role of the facilitator, to put those institutional goals and make sense of it for the students, to see where they are going and to preempt some of the frustration that they will feel.

Chris described his perception of how the imposed environment of the teaching schedule disrupted the learning environment.

> Yet, we keep bringing more and more in. We change the schedule and it drives people crazy. There is no time for reflection. And I would not increase the contact hours; that we decrease them and give them [students] time to think. Those . . . people who will be the future leaders take the time to read and reflect. . . . I think we need to give them time to reflect. You cannot teach someone anything unless they have time to think about the material and digest it. Then they need to digest what they got in the classroom. And this is crazy; this is a conveyor belt and it is wrong.

Based on his experience with curriculum, Jim talked about the aggravation he felt when he attempted to balance content-heavy curriculum against the college's adult education philosophy. He associated the institutional environment with increasing amounts of content in the curriculum.

> And so what tends to happen is instructors recognize they've got all this content that they have to cover. The only way they see to get there is to lecture. I think sometimes they should consider not covering all the content and focusing more on deeper understanding of the most important aspect of that content. Yeah, it's an institutional responsibility to ensure that lessons are not packed so full with content that it doesn't allow learning to occur, you know, on a deeper level.

Another faculty member shared his views about what he saw as an inflexible institutional environment that affected his self-efficacy beliefs regarding facilitation of discussion.

> I can facilitate discussion, but we, as instructors, have been told in no uncertain terms that we can't change deliverables, change the schedule, extend a paper by one day, etc. It's hard to match up individual instruction capability with a lock-step teaching model, rigid schedule, and way too many distractions. It's hard to really focus on learning when the plate is as full as it is: too many guest speakers, STRATCOM [strategic communications], yearbook, mandatory training, too many papers, visitor requests . . . lesson plans for electives (they change way too often to go with full blown lesson plans, complete with review by CGSS), etc. This department is a great place to work, but the additional requirements from CGSS are detracting from education and a fluid classroom. There is very little latitude left.

Bob talked about the CGSC expectation that faculty deliver curriculum that is out of synchronization with the institution's teaching philosophy. He noted that the faculty development program (FDP) phase 1 training focused on the experiential learning model (ELM) and adult learning principles. However, the FDP phase 1 emphasis did not carry over to faculty curriculum development. Whereas FDP phase 1 built up his self-efficacy for teaching, the curriculum did not because it focused on lectures, Power Point slides, and content-heavy requirements. Bob quickly lost his self-efficacy when he used the lesson plans for his classes.

> Unfortunately, I think too often we undermine the value of that initial conceptual development of our faculty by then going to the lesson plans that undermine those adult-learning principles that we are trying to embrace as an institution. And so for me, the one thing that the institution could do much better, that it does not do very well, is exert more quality control on lesson plans. Too often we say that we're going to use the adult learning model in our classroom and then we expect instructors to simply produce . . . we expect our instructors to produce a slide deck with two hours of Generate New Information.

Another faculty member explained how the inequitable distribution of class hours among the teaching departments affected his self-efficacy, to include discussion in his classes. The teaching schedule and lesson plan did not provide enough time for discussion.

> A wildly over-emphasized goal of the CGSC classroom model: neither time nor student expertise is available to conduct most classes along the lines dictated by the ALM [adult learning model]. ALM is a fundamentally flawed methodology for most of the instruction conducted at CGSC.

According to faculty, CGSC failed to take full advantage of faculty expertise across the teaching departments. Leveraging faculty experience fit nicely into what Bandura (1997) called the sources of self-efficacy, especially verbal persuasions (Fig. 2.3). Some faculty believed the imposed environment failed to provide opportunities for faculty to share their expertise. These faculty members felt helpless. They wanted help in developing their teaching skills. One faculty member pointed out the importance of institutional involvement in the faculty development process, yet noted that CGSC had not provided adequate resources, "Facilitating discussion is one of the most important and one of the most difficult things we do at CGSC. We need to devote more resources to enhancing faculty development in this area."

Kyle voiced clear concern that the institution did not understand its role in establishing the conditions to create democratic and motivational classrooms. Specifically, Kyle noted that the institution did not provide the tools for modeling discussion in the classroom.

> I think the institution is responsible to show you what "right" looks like. They don't have to give you all the tools, but they need to give you enough tools where you can be effective at least in your first one or two years as a discussion teacher. So, I think what the institution can do is give us a model, show us what the model looks like, present us opportunities to get out there and do it before we have to do it for real, and then support us if we don't get it right the first time.

Dan observed there were opportunities for faculty development. However, the institution lacked a process by which those who had experience shared or modeled their facilitation skills with other, less experienced, faculty. Missed opportunities affected how new faculty could increase their self-efficacy beliefs and create democratic and motivating classrooms. He said,

> Instructors who want to be good instructors attend [faculty development programs]. Those who probably need it the most don't attend. They are not interested in it. They don't receive feedback that their instructional methodology may have room for improvement because we don't have mentors or faculty observers that provide that feedback.

The imposed environment included institutional processes for feedback. Faculty targeted the lack of feedback about their teaching practices and about how they created their classroom environment. Dan stated, "I think the institution also should have a rigorous program to go in and observe classrooms, and provide instructors feedback on how well they are facilitating discussion." Rod outlined his thoughts about a three-tiered approach to classroom observation and feedback, with the first tier consisting of the Faculty Development Program Phase 1 for new instructors.

At the second tier, teaching departments had responsibility for the feedback process. Rod stated, "It's also dependent upon the directorate to get into the classroom and to offer suggestions of how that instructor could be a better facilitator. It is also a responsibility of his peers on the teaching team."

The third tier included formative student feedback. Rod recalled that early in his teaching career, he had students provide feedback. He continued the practice and asked for student input throughout the year. His first attempt at student feedback caught him by surprise.

> The first year I did this [ask for feedback], I had half the staff group tell me that I was rude, that I interrupted, and that I cut people off and I high-jacked conversations or discussions. I was shocked. I thought I was just being energetic. Well, you can be energetic to the point of being rude. And it is important that you understand how the students perceive you, because perception is reality.

Erin felt feedback improved faculty self-efficacy and that the institution did well in that regard, especially in faculty development program (FDP) phase 1. She indicated that the institution had a robust feedback process.

> They [faculty] have to get feedback. They have to know how they are doing in class. Our faculty development program [phase 1] models how to lead discussions. Adult learners want to be successful and they want to participate. And in order to do this, you can't lecture. So we model that. We also encourage peer-to-peer observations and give faculty feedback.

Some faculty viewed the CGSC feedback and assessment program as punitive. Don stated,

> The other thing that could be improved, inasmuch as people were uncomfortable with it, is a representative from the institution [CGSC] who visits classrooms to see how instructors are doing. It would probably be more comfortable for instructors if it were within the department, a senior instructor.

Finally, another area of the imposed environment that affected faculty self-efficacy beliefs pertained to management of student expectations about the CGSC teaching methodology. Several faculty members felt the institution could do more to manage student expectations prior to starting the school year. Students came to CGSC with numerous ideas about adult education. In order to set the conditions for success in the classroom, Kyle said,

> I think the institution should explain to them, at least in the early days of the class, that we do things a little different here. And not to be afraid of it because it's a little different than what you're used to.

Bandura (1997) noted that individuals view the imposed environment from many perspectives. Sometimes these perspectives are positive and other times they are not. In any case, the CGSC imposed environment affected faculty self-efficacy beliefs about their classroom environment, discussion, teaching skills, and feedback.

Selected Environment

Bandura (1997) distinguished between potential and actual environments. The "environment does not come into being until it is selected and activated by appropriate action" (Bandura, 1997, p. 163). In other words, faculty selected the actual environment by means of their action or behavior. Faculty selected certain behaviors based on their self-efficacy beliefs (Figure 2.4). Within the selected environment, faculty members made choices and engaged in behaviors that brought together people, resources, and the classroom milieu to accomplish teaching objectives. In this regard, the selected classroom environment reflected the agentic perspective of human functioning; faculty made choices about the types of behaviors they engaged in to become successful facilitators. These decisions, the success they experienced, and the feedback they received were all sources of self-efficacy for teaching (Figs. 2.3 and 2.4). Gerald described his view of the selected environment in terms of bringing

> Together the school, and or the institution of the Army's goals as expressed by their content, their curriculum, their ELO [Enabling Learning Objective] and TLO [Terminal Learning Objective] . . . where the students are coming from. Not just their experiences, but the sum total of their education and training experiences and their own desires to head through. The role of the instructor in the classroom as a facilitator is to match all those competing demands so that at the end, you have a product [educated Army officers] that is useful not only to the institution, the institutional goals of the Army and CGSC, but there has been growth which we call learning for education in the student.

Faculty members who are engaged in their profession bring into the selected environment a broader understanding derived from professional associations. Chris said, "The mark of a professional is to join professional organizations. . . . I am a member of [name of society deleted] which I use extensively in the classroom. That is where most of the case studies comes from." Other faculty talked about their professional reading across multiple disciplines that gave depth and breadth to the lessons they facilitate.

Bandura (1997) wrote about the selected environment, "Some people take advantage of the opportunities it provides and its rewarding aspects; others get themselves enmeshed mainly in its punishing and debilitating aspects" (p. 163). Faculty behaviors based on individual levels of self-efficacy either brought together the resources for healthy, democratic, and motivating classrooms or they settled for faculty centric, transmission-based teaching. In terms of faculty beliefs about their inability to change the environment, Bandura wrote that psychological barriers resulting from "powerlessness are especially pernicious because they are more demoralizing and debilitating than external impediments" (p. 524).

Created Environment

Finally, the created environments are those in which the faculty develop the social and learning relationships within the classroom. Bandura wrote, "People create social systems that enable them to exercise greater control over their lives. . . . People's beliefs in their personal efficacy play a paramount role in how they organize, create, and manage the environment that affects their developmental pathways" (p. 163). Faculty members with high self-efficacy about their skills to manage classroom environments created the conditions that promoted student engagement in discussion teaching. Such created environments did not happen by chance. Kyle noted that faculty needed to pay attention

to what they were doing in the classroom. They had to make sure they managed and organized the resources to create the student-centric environment. Kyle said, "In the classroom setting, there's not really a lot of big problems, but there can be a lot of little, little bitty problems that upset the dynamic, and before you know it, you've got a classroom that is dysfunctional."

Bob talked about how he physically set up the classroom and rearranged desks to create an environment that invited discussion. He mentioned how he managed the combination of technology and white boards, using everything in the classroom, to stimulate student thought. When he reorganized the desks and incorporated different types of technology, Bob found that students paid attention. Bob stressed that he physically moved around the classroom, and that became an important element for discussion.

> I personally find it useful to move about the classroom. I think people are understandably uncomfortable having an instructor walk behind them. I understand that. But on the other hand, it does serve a useful purpose . . . enables me to attract students' attention not only to me, but to other students. . . . They make eye contact and engage their classmates.

Rod allowed students to play a role in the classroom that created an atmosphere for discussion. Cognitively, emotionally, and physically engaged students resulted in tremendous classroom cohesion. Rod incorporated the students into the facilitation and managed the process by

> A team-teaching process where every student in my staff group is broken down into a team of two. I assign some readings. I will tell them the portions of the reading I want them to facilitate, but I'll also give them a question to facilitate. And I'll say, "Smith and Jones, when I walk into class, class starts and you are first up. Now, if you want to show a video or something to give a graphic illustration . . . that's cool."

Faculty described many techniques that created social relationships within their classroom and fostered a positive learning environment. Faculty used various methods to manage the environment and prevent small problems from becoming barriers to teaching. Other faculty talked about how they organized the physical layout of the classroom or adapted curriculum for student team teaching. Faculty with high self-efficacy beliefs about their capability to manage the classroom resources found ways to overcome

barriers and, if they failed, they tried again. "Perceived self-efficacy operates as a higher order determinate with broad impact on attitudinal, affective, motivational and behavioral aspects of functioning" (Bandura, 199, p. 247). With every success, they indicated they had greater confidence in their ability to manage the classroom environment. Faculty with low self-efficacy might not have attempted to use their skills or they may not have engaged behaviors that involved risk or possible failure. Bandura noted that in academic contexts, faculty who see themselves as "powerless . . . are likely to convey a group sense of academic futility that can pervade the entire life of the school" (p. 248).

Environments Involving Hegemony, Power, and Alienation

Throughout the interviews, many faculty communicated the importance of the classroom environment for generating and maintaining discussion. They identified specific techniques that helped them create what Wlodkowski (2008) called an inclusive environment. In critical theory, learning environments stymied the democratic processes envisioned by Brookfield and Preskill (2005) if those environments had vestiges of hegemony, power, or alienation of students. Faculty shared their experiences about how they managed those types of situations.

Bob pointed out that students had tremendous energy, felt strongly about their points of view, and eagerly defended their position during discussion. But when students encountered hegemonic situations within the classroom, they often lacked the capacity to police themselves.

> In any given group of students, there are some who are more boisterous, more opinionated, more long-winded, more outspoken, and more willing to interrupt another student. And I find, unfortunately, that without, without some coaxing from the instructor, students will rarely assert, be sufficiently assertive to police themselves.

Chris related his experience about a classroom bully who created a toxic learning environment. This student simply wanted the faculty member to

> Prepare me for the next assignment and I don't care about anything else. And he dominated the class. The only time in five years that I hated to go into the classroom. You can't do anything about that; you just try to ignore it.

Sometimes the instructor created a hostile learning environment because of his or her teaching philosophy. One instructor opined that students were merely containers.

The faculty poured in the knowledge because students lacked the capacity to teach themselves. This instructor stated,

> I do not subscribe to the notion that instructors should tailor their material or methods to accommodate individual differences among students. This is supposed to be adult education. It is the responsibility of the adult student to accommodate himself/herself to the material and methodologies of the subject at hand. . . . I solicit student input that fills in pieces of the puzzle. Rarely do I ask students to invent the puzzle—I'm the one with the PhD. I am a teacher (and proud of it), not a facilitator.

Brookfield (2005) pointed out that individuals willingly accepted hegemonic servitude; they acquiesced to those who held power. He believed that power structures were well hidden, even in classrooms where discussion appeared to be democratic. Instead, Brookfield described discussion in those situations as "competitive intellectual besting," or an educational version of Darwinian survival of the fittest (p. 118). The fittest, of course, were those students or faculty who spoke the loudest. They maintained dominance through intellectual intimidation and often they overpowered those with less eloquent voices.

Alienation occurred when students became disenfranchised, meaning that learning became an object "undertaken to satisfy external authorities [and] cease[d] to become the adult learner's intellectual project" (Brookfield & Preskill, p. 154). Thus, with boisterous students who dominated a discussion, the bully who intimidated the classroom, or a faculty member who objectified learning and alienated students from their intellectual projects, every classroom had the potential to stifle discussion teaching.

Wlodkowski (2008) discussed the attributes of a motivating environment that displayed sensitivity to diversity. Specifically, diversity in CGSC classrooms favored white males. Wlodkowski pointed out that culture impacts the classroom through differences of individualism and collectivism, gender, and power distance. Faculty members who do not acknowledge those differences create pockets of alienation. Inclusiveness, on the other hand, requires faculty to build respect for diversity in the classroom. When they do so, faculty members foster connections among the individuals in the learning community. When they fail to do so, individuals feel marginalized.

Bob pointed out that it was extremely difficult to retrieve respect once it was lost. He described how he lacked sensitivity for gender diversity in the classroom by calling

all students "gentlemen." A female student followed up the sexist comment with a note in the end of course survey. Bob described the feedback,

> The fact that she remembered it [use of the term gentlemen] and the fact that it bugged her so much . . . taught me that little things like that matter a great deal. The relationship of mutual respect between instructors and students is a fragile thing. . . . Once you lose it, it is nearly impossible to get it back.

Faculty with high self-efficacy beliefs about their conflict resolution skills exercised their influence within the classroom and helped to diminish the debilitating effects of power imbalance and alienation. They understood that reciprocity of social influence in the classroom could end in alienation or inclusion, hegemony or collaboration. The faculty with low self-efficacy beliefs about their conflict resolution skills avoided confrontations in the classroom and acquiesced: "There is not much that you can do about that." In such cases, power structures persisted and dominated the classroom environment.

The Environment and Emotional Intelligence

Frequently, during the interviews, faculty referred to classroom atmospheres that invited discussion. They noted that clearly defined expectations and standards were essential if they wanted to build the climate that sustained discussion. Several faculty members described how classroom dynamics contributed to students' sense of safety in the classroom. In a safe environment, students shared their experiences willingly.

Kurt described the importance of self and others awareness. He referred to emotional intelligence as an important element of facilitation competence. He explained,

> You have to know yourself, your strengths and weaknesses. You can't walk in there not knowing the subject matter. . .. So, make yourself a subject matter expert in all things. You stay tuned to current events, because they do. So, you know yourself, you prepare yourself, and you have to be aware of where they are coming from.

Kurt's comments about knowing oneself were reflected in what Christiansen (1991) wrote, "Self-knowledge is the beginning of all knowledge. I had to find the teacher in myself before I could find the teacher in my students and gain understanding of how we all taught one another" (p. 103). Brookfield and Preskill (2005) called the knowing of oneself humility. "It means acknowledging that others in the group have

ideas to express that might teach us something new or change our mind about something significant. It is being willing to see all others in the group as teachers" (p. 12).

One way that another faculty member prepared himself for the classroom was by understanding the students. He used the Myers-Briggs Personality Type Inventory and the Kolb Learning Style Inventory to sort through potential classroom dynamics. This instructor believed that discussion worked well when a variety of personalities and learning styles were present in the classroom. "If it is out of balance, if you have a large number of one versus the other, it can have a significant impact in your ability to foster discussion."

Many faculty members created and maintained relationships with the students. They learned something about them, understood their learning preferences, and respected their individual experiences. Garvin (1991) pointed out, "Any form of active learning thus requires high levels of empathy and trust . . . instructors have the added responsibility for ensuring a supportive classroom environment" (p. 12). These efforts positively contributed to the learning environment. Darrell fostered respect and trust among the students as well as the faculty because he considered those elements as essential for building a healthy classroom climate.

> You have to have trust. They have to trust you that you are not going to play "I have a secret" and set them up to look like dummies or hurt them, psychologically or socially. You have to trust them to do what they say they will do. A lot of it is setting the conditions: this is how we will do business. Adult learning expectations are important. Students need to ask the right questions and be civil about it, not abusive and rude.

Once the class was over, successful facilitation of discussion created an atmosphere of continued student interaction that spilled out into the hallway or it broke down into one-on-one discussion with the instructor. When faculty talked about good facilitation, they felt it could exist only if students saw relevance, engaged in polite discourse, felt safe when expressing their views, and had mutual respect. Good facilitation, as described by Rod, included,

> The respect of the students and the students' respect of the instructor. So you've got to set up the quality learning environment to where good facilitation is . . . a brainstorming session . . . where students are armed with three things to answer the questions I am going to throw out. The first one is the new information that

> you learn in your readings, the second is your experience and your insights and your third is your solution to the problem.

Not only was emotional intelligence important, but Don pointed out the power of words. "I am very careful about my choice of words. And I'm always encouraging the students to talk. Now, I think I've done fairly well in making the students comfortable and encouraging them to do that." He described how words were powerful, and when used incorrectly, misunderstandings could break down the climate of respect and trust. Don's choice of words affected international officers, so he was careful when he spoke to international officers.

> I always ask them a question. I found that more often than not, the international students can listen better than they can speak, and so the past couple of years, I've been—my students were pretty good—my international students did pretty well following the discussion by the U.S. peers. But I find that I have to encourage them to participate orally, so I will usually ask them a question. And again, like I mentioned earlier, not to feel like—not to make someone feel like I'm picking on them, I'll maybe only do that once or twice during—during a class. So I don't—if someone is quiet, I try not to—I try not to, you know, single them out too often as far as, you know, try to–try to contribute to the conversation here. And so I just—you know, I just maintain my—or have reasonable expectations for some of our international students.

Developing relationships with the students in the class also strengthened the capability of some faculty to engage in discussion. Rod noted that faculty needed to have some personal connection with the students. "He or she should be able to know one or two very significant things about every student. What is important to them"? What was important to the students, when valued by the instructor, helped to develop trust. Rod continued,

> Where there is a high trust factor, and I've mentioned mutual respect, but also when there's great trust between the student and the facilitator . . . the facilitation is going to go much easier because they are going to want to communicate their opinions and their viewpoints. That is the point of being a facilitator, to draw out those points. But unless the student feels it's a safe environment or has respect for that facilitator, he's just, he doesn't have to say anything.

Bob provided his views,

> So, I believe in calling on students by name if necessary and asking them to contribute, but—but it's hard to do that—an instructor should strike a balance, I think, in terms of on the one hand, coaxing those students to participate but on the

> other hand avoiding embarrassment or even offending or infuriating the student who just doesn't want to speak. And because we have international officers who come from different cultures, that makes it even more important to tread lightly there, because we do not want to poison the well, so to speak, by establishing, even inadvertently, some adversarial relationship with the student and then essentially losing that student for the rest of the course, which—which can happen.

Don noted that he liked to build alliances with the students. These alliances helped to diminish the problems of hegemony, power, and alienation. "What I try to do is find allies in the class. You do that by the reactions as you go around talking to people. I try to establish relationships." Faculty with high self-efficacy beliefs about their negotiation skills determined appropriate behaviors that influenced students and built effective relationships. These relationships, in turn, sustained the classroom environment and produced collaboration. Faculty with low self-efficacy beliefs about negotiating saw themselves in negative terms, had difficulty building relationships, and failed to develop the networks that sustained discussion.

Developing the Environment through Shared Responsibility

Some faculty, especially those with high self-efficacy about their ability to develop partnerships with students, pointed out the importance of shared responsibility for discussion. This shared responsibility created a healthy learning community. Christiansen (1991) stated, "A discussion class is a partnership in which students and instructors share the responsibilities and power of teaching, and the privilege of learning together" (p. 16). Wlodkowski pointed out that faculty who embrace collaborative learning "tend to think of themselves less as singular transmitters of knowledge and more as co-learners and co-constructors of knowledge" (pp. 140-141). However, students did not come to the CGSC classrooms with understanding about the learning climate. Faculty understood their shared responsibility with other faculty as well as the students. Facilitated discussion clearly involved more than just the instructor: it involved the entire classroom learning community.

Dan described the bumpy road that led to discussion teaching in his seminar. He taught students to talk to one another. He became part of that process as well. He taught

the students about discussion when he role-modeled with other faculty, asked questions, and used techniques that engaged the students.

> The institution prepares them, but it [classroom lectures] is still what they are used to seeing. Until they got to a graduate level course, and arguably, even once they are in a graduate level program, most of what they received has been lecture. Most of it has been position of authority, position of knowledge within a particular area, telling them what they need to know or explain to them the key things they need to know . . .
>
> When we ask a question in the classroom, we can get thoughtful responses. The students are not used to the go-back-and-forth between one another. So a good facilitator may resort to turning their back on the students, or looking away, while a student is talking to them to break that eye contact. That forces the student to go find someone to talk to. It is natural, or natural tendency to make eye contact to continue the discussion. That has the side effect of getting other people involved, because now they are going to respond to someone who is talking to them rather than to the instructor.
>
> One technique I use is to intentionally record comments upon the white board while discussion is flowing. I try to capture the salient points. It shows that I value what is being said. It shows that I am listening. But is also turns my back to the students temporarily. So they will start talking to one another. Generally, I will hear someone else pick up where someone left off. Or I can facilitate the discussion by throwing out a summary or another follow-up question, over my shoulder, and then wait. Someone else will chime in, talking back to that individual rather than talking to me because my back is turned away from them at the time. It is little things like that help the students get out of the mindset that, "Someone is up here to tell me what I need to know; that my dialogue is always with the instructor." Get them thinking in terms that, "My dialogue is with my peers."

In addition, faculty described they had to build trust with other teaching team members. Often, faculty members facilitated discussion with another faculty member in the classroom. Thus, faculty learned to talk to other faculty. Jim, who was also an adjunct for a major university, said,

> One of the best tools to promote really effective discussion is to have more than one instructor, a teaching team, where . . . if you teach together regularly, you know that the other has to offer as well, so you can kind of cue each other.

Faculty with high self-efficacy beliefs about their collaboration skills helped students develop guidelines and expectations for the class. They believed students learned from other students as well as from the faculty. However, faculty with low self-efficacy beliefs about collaboration quickly pulled back classroom control if they felt

discussion veered off track. One faculty member described his observations of student reactions in that type of environment. He described students as "stacking arms," meaning they disengaged, politely listened, and then went their way when the instructor finished his or her lecture.

Developing the Environment through Commitment to Discussion

Brookfield and Preskill (2005) wrote that faculty must be committed to discussion to have it work. "Before you can get skeptical students to take discussion seriously, you need to demonstrate your own readiness to engage in this activity" (p. 51). Eventually, students needed to commit to discussion as well. Commitment required that all parties enter into discussion "committed to questioning and exploring even the most widely accepted ideas and beliefs . . . conversing critically . . . open to rethinking cherished assumptions . . . enter the conversation with open minds" (p. 7). Commitment to discussion was not limited to faculty. Students had responsibilities as well. They expected students to

> Become profoundly and actively involved in their own learning, to discover for themselves rather than accept verbal or written pronouncements . . . such creative activity cannot be ordered or imposed upon the unwilling . . . such attitudes are gifts from one partner to another. (Brookfield & Preskill, 2005, pp 16-17)

Bandura (1997) addressed commitment to new innovations: the concepts he described applied to student buy-in for discussion teaching. Faculty with high self-efficacy about their persuasion skills looked for opportunities to enlist those early adopters, who could then influence the entire seminar. Bandura wrote about the impact of those early adopters, who influenced the organization,

> Adoption of innovations, therefore, can have sociostructural reverberations. Early adopters of beneficial technologies not only increase their productivity but can gain influence in ways that change the structural patterns of organizations. Burkhardt and Brass (1990) report a longitudinal study showing that efficacy beliefs promote adoption of new technology . . . early adopters gained more influence and centrality within the organization over time than did later adopters.

On the other hand, faculty who had low self-efficacy about their capability to facilitate or engage in discussion avoided it. "The more people distrust their efficacy, the more they shy away from activities and products requiring higher cognitive skills" (Bandura, 1997, p. 460). Such faculty returned to what they knew about teaching:

transmission of information through briefings and Power Point presentations. If they attempted discussion, they met with marginal success, due primarily to their feelings of incompetence, fear about loss of control, and inability to trust students with their own learning.

Erin believed accountability was an important contribution to the discussion environment. Without accountability, faculty appeared as frauds.

> You cannot encourage classroom discussion unless you hold students accountable to the preparedness, because then there is no discussion. . . . Brookfield would say you are not going to lead a counterfeit discussion 'cause they will read that right away. You have to actually want it to be a discussion, because adult students will see right through you if you're going to manipulate them.

In addition to accountability, faculty had to build into their classroom a set of standards and expectations. According to Rod, enforcing standards included a wake-up call for some students,

> You have to enforce standards and that includes the readings. I let them know I expect . . . [for] their professional growth . . . that they do the readings. I had a student two months ago that did not turn his paper in. He was just too busy. After a week of trying to get it out of him, he found himself up in front of a full colonel on academic probation. . . . That went through the staff group [seminar] like wildfire. Rod is serious about his material and his job and we need to be serious about it too.

Faculty expressed the importance of establishing expectations in the classroom. In instances where faculty admitted they had not established expectations, the classroom atmosphere deteriorated and discussion teaching increased in difficulty. Darrell succinctly stated,

> Adult learning expectations are important. Let's talk about what I expect and you talk about what you [the students] expect and how we will run things around here. I have wide latitude in terms of what I am allowed to do. Let's set rules of engagement, rules of the classroom . . . and then live by them.

Jeanette added that in addition to standards and accountability, faculty member enthusiasm for discussion demonstrated their commitment to building a motivating learning environment. Enthusiasm, according to Wlodkowski, is the power of commitment, "Enthusiastic instructors are potent models" (p. 71). Jeanette observed that faculty members needed to be

> Energetic. . . . I have seen a lot of people in this department. . . . I don't think they are always the best instructors; however, when you put them in the classroom, they may not be the subject matter expert, but they know how to facilitate.

In summary, findings in this study showed that faculty with high self-efficacy beliefs about their skill sets engaged in behaviors that led to success. Even though the environment imposed by CGSC contained many negatives, these faculty members chose to react with resilient behaviors. They sought opportunities and discovered ways to navigate around barriers and obstacles. Faculty who expressed low self-efficacy beliefs about their array of problem solving skills saw their situation as almost hopeless; consequently, they saw little or no reason to work through problems. Faculty with high self-efficacy beliefs about their facilitation skills created inclusive learning environments that produced vibrant classrooms. They selected behaviors that brought together the resources, people, and classroom milieu, which generated success in the seminar.

In addition, highly self-efficacious faculty engaged in a broader learning community that consisted of professional organizations and multi-disciplinary reading lists. These networks helped them create broad understanding about the topics they taught, that, in turn, effused the discussion with depth and breadth and engaged the students. On the other hand, faculty with low self-efficacy about discussion facilitation skills engaged in behaviors that led to unsuccessful classrooms. When they encountered failure, they lacked the resilience to try a second time. "There is not much you can do about it," one faculty member stated when he encountered conflict in the classroom.

Theme Two: Discussion Teaching

Discussion Teaching and Cognitive Development

The classroom environment emerged as a strong theme during the analysis of faculty interviews. Faculty described how they created an environment that supported sustained discussion in the classroom. As discussed in Chapter 2, Brookfield and Preskill (2005) wrote that discussion within democratic classrooms nurtured and promoted "human growth . . . the ever-increasing capacity for learning and an appreciation of and sensitivity to learning undertaken by others" (p. 3). Democratic environments, created by faculty, allowed them to achieve the goal of increasing student capacity to learn. A key

concept in the Army's *Learning Concept 2015* (Dempsey, 2010) involves capacity for lifelong learning.

Faculty understood the connections among the classroom environment, discussion teaching, and the Army's learning concept. Bandura (1997) talked about self-efficacy influencing human behavior. Dellinger (2008) developed a model describing how teaching self-efficacy beliefs leads to a variety of possible behaviors options. The behaviors that teachers select become visible in the classroom and affect the students (Fig. 2.4). Teacher self-efficacy beliefs change for each task, condition, or degree of difficulty. Likewise, in higher education, faculty self-efficacy beliefs influence faculty decisions about the types of behaviors they use to engage students in discussion.

A theme that emerged in this study involved discussion as a teaching methodology. Faculty overwhelmingly identified two components of good discussion in the classroom. First, faculty said that relevant discussion generated its own momentum and engaged the students. Discussion built energy and created a life of its own, allowing students to become the creators of knowledge. Second, faculty acknowledged the role of the facilitator as a guide who incorporated critical thinking questions to prompt new strands of thought. The facilitator not only guided the direction of the discussion, but also became part of the process. At other times, he or she stepped back and evaluated whether discussion achieved the learning objectives for the class. One faculty member offered his view about the importance of discussion,

> In our unique environment here at CGSC, the ability to facilitate open and challenging discussion among our field grade officers is probably the most important skill required of our faculty. While knowing the doctrine and executing the curriculum are both important, these are clearly secondary to the vital ability to engage in and foster lively and intellectually challenging dialogue in the classroom.

This description of discussion teaching aligned with Perry's (1997) cognitive development scheme in which he identified nine positions of cognitive development that sequentially and progressively become more complex. At the higher-level positions, faculty members guide students as they confronted diverse viewpoints and coped with ambiguity (Merriam et al., 2006). Faculty created the conditions within their classrooms that allowed for the evolution of how students viewed learning, themselves, and meaning

making. The implications about meaning making for faculty self-efficacy beliefs appear in the following paragraphs.

Discussion Teaching as Hard Work

Overall, faculty enjoyed discussion teaching, as well as the energy in the classroom when discussion took on a life of its own. However, discussion teaching involved hard work, and sometimes faculty expressed misgivings about their self-efficacy. One faculty member said,

> Facilitation is harder than it looks. I've sat in several classes where instructors lectured rather than facilitated. Some instructors seemed nervous about letting a discussion veer off the path. There was a fine line between pursuing an unexpected topic and getting off message. Some of the more nervous faculty refused to risk exploring the unexpected. In the end, this process is more complex than one would expect; I know there's much room for improvement on my part.

Kyle described discussion as exciting and surprising. "First of all, you are really surprised at some of the responses and the connections that students will make with, one, the lesson material and the curriculum, other students and also their experiences." But faculty also noted that good discussion happened, not by accident, but through focused effort. They worked hard to set the conditions for discussion to take place.

Discussion generated ambiguity and provided students with opportunities to see learning from new perspectives. It helped them gain confidence in their capability to deal with information that did not fit into their pre-existing schemas. Don described his experience with students as they struggled with their evolution in understanding.

> What I find interesting, though, and it recurs every year with the groups that I have, that the development piece about asking the students, "Well, what are you going to do with this information? Why is this important to you?" I find often that the—I had to help—help them along in this piece, especially when we get near the end of discussion before we get into the practical exercise. The lesson plan requires me to ask them this question, the developmental question, you know, why is this important? What do you take away from this? And, you know, I find that this is actually the most difficult step often to get the right—have the students realize how was the information in this lesson is important to them.

Chris responded,

> So you have people come up like, ah, one young man—we did a leadership philosophy right off the bat—saying, basically, "I know everything I need to know about leadership. You can't tell me anything." So I worked on him. He had

> a . . . we became very good friends. I just got an e-mail from him. He didn't tell me he learned anything, but I know that he did. He knows he did. So I did not have to rub it in. . . . I think he will probably stay in touch with me for the rest of his career.

Kurt stated,

> These qualities are what we are going to be looking at. . . . We're going to want to be able to influence people in dangerous situations. I try to tie everything together and I try to do so in a way that sets an environment or sets a mindset–a state of thinking that takes–may sometimes take them out of their ordinary environment.

Dan discussed, in his own terms, key elements of Perry's (1997) positions.

> Facilitation of discussion is a key ingredient to the adult learning model that we employ here in the College. To the extent where I prefer to think of the generate-new-information aspect of our experiential learning model as being specifically discussion, not lecture from the instructor. That is how the students understand new material, make new connections: they should come in with the basic understanding of the material. I am trying to get them to a higher level of learning. So, to get them up higher in Bloom's taxonomy, I want to facilitate the discussion. Good times, students support the discussion, it flows, they feed one another, they build on one another. I also have bad times where I've imposed the cone of silence, asked the leading questions, counted the 20 seconds, and still did not get a response. So, it can go anywhere in between those two extremes of how well the students are participating in the discussion. But I am convinced that is the way they are going to learn in a graduate level program.

Dan noted that students caught on to meaning making and they developed the capacity to generate new ideas. He said,

> They build on something—a statement or an analysis made by someone else. The best discussion is when a student synthesizes comments from two or more students into something bigger, broader, more focused, more specific to the learning objectives that we are trying to accomplish.

Another faculty member stated,

> Facilitating discussion is the first most important skill for teaching majors. The second skill is to display competence in the subject matter. You must engage them first to be successful in the second. This skill is developed and refined over time. Based on the diversity of the experience, education, and personality of a CGSOC Seminar, the instructor must adjust their approach with each group to enable learning.

Discussion Teaching and Guiding Students

Successful faculty members prepared themselves to guide students to higher positions of understanding and meaning making. Sometimes students achieved higher levels of cognitive development on their own, but more often they needed faculty guidance. One faculty member stated,

> We need to facilitate, not lecture, to maximize learning. This is where an instructor's leadership skill or ability to influence comes into play. He or she must have a solid understanding of the curriculum and be prepared to demonstrate what right looks like, and if necessary, launch discussions. Instructors will experience success in the classroom with patience, sound understanding of the TLO's [terminal learning objectives], and careful employment of participative, delegative, authoritarian leadership styles.

Dan situated student preparation in terms of primed learning. He said,

> The facilitator should also prime them for the discussion by providing with read-ahead materials, their homework, topic sentences, or topic questions that will lend themselves to a good discussion, not shallow knowledge questions, but analytical questions or application examples. Or an even synthesis level question so that they are encouraged to discuss something beyond yes and no, a-b-c, or the correct answer is 25. Those are knowledge level that is not going to generate any additional learning in the classroom. Once the discussion starts, a competent facilitator is constantly thinking about "Where is the discussion now? Is it going in the right direction to accomplish the learning objectives? If not, how do I tactfully, respectfully, redirect the discussion in the right direction?"

Faculty prepared students through focused pre-readings and carefully selected critical thinking questions. Preparation, discussed later in this chapter, helped faculty as they facilitated discussion and guided students in understanding the material.

Discussion Teaching and Faculty or Student Balance of Control

Most faculty members said they stepped back and let students proceed on their own when they discussed topics. Faculty members struggled over the fine line between faculty or student control. Faculty indicated they took risks when they loosened control of the classroom and turned responsibility for discussion over to the students. Kurt risked control in the classroom, but he built trust when he did so.

> I think the loose and free-flowing, or freewheeling [discussion] is what I call it. I think it is designed to build trust. I want you guys to be able to trust me and I want you guys to be able to trust each other.

Rod relaxed control and noticed students increased the exchange of different viewpoints. He sensed students felt safe and engaged in higher levels of cognitive development. Rod recognized that he had guided students to challenge their assumptions and move towards Perry's (1997) higher cognitive positions. Christiansen (1991) noted that when faculty claimed expertise, or the mastery of content, yet forgot about the process, the result was a "controlling teaching style that creates bilateral frustration when students inevitably try to go their own way" (p. 105). With this in mind, Rod's description of control seemed reflective.

> Is the facilitator relaxed and in control? Not that he's wanting to put on a power trip, not that he's wanting to keep tight command and control. But, is the environment relaxed and professional? The facilitator has to create the environment for students to feel safe to offer their opinions no matter how controversial it may be. Is the facilitator challenging all the sides of the issue?

According to Darrell,

> Good discussion takes on a life of its own. . . . It is almost hands off, which is scary, because it can sometimes go where you don't want it. Or, true discussion has no direction; it is merely whatever comes up. Well, that is great. It doesn't really achieve the learning objective so much. . . . So you have to guide it a little bit, but you don't want to guide it any more than you have to. If everybody has read the stuff, and they know what the learning objectives are, then they should help move the discussion in the direction that it should go.

Kyle noted,

> Although you might be considered the expert in the classroom by the students, when all you do is talk in the classroom, it certainly inhibits their talking and you don't have time to—you don't take the time, don't have the time, or don't make the time to pull out of them their ideas and their thoughts.

Letting go of control in the classroom so that students had the freedom to pursue discussion energized Erin. Letting go entailed preparation of good critical thinking questions that generated discussion. Once discussion started, faculty backed up and listened to the students. Erin explained,

> I think faculty members that are truly comfortable facilitating learning have to let go of slides and scripts and be comfortable with what they [and] . . . the students bring to the classroom.

Sometimes, according to Erin, letting go was hard because of the ambiguity in the classroom.

> We tell our students that they shouldn't be uncomfortable with wicked problems but yet we want answers and solutions ourselves. We've got to understand that there's no certainty, and that we have to rely on the fact that this institution is about critical thinking, and that is the mission and that should be the vision of developing stronger critical thinking skills in the students.

However, too-tight control over the classroom caused problems with the free flow of ideas during discussion. Competent facilitators reluctantly backed away from center stage. They understood the material and the learning outcomes. When they let go, faculty risked those outcomes. Bob said, It's hard for us to get out of the way and let students talk to each other . . . it's a risk. It's a risk because sometimes conversations do get out of control." Darrell stated that competent facilitators needed

> To have a strong ego. But not so strong that he or she wants to hear themselves talk all the time. [They] need to be comfortable enough, competent enough, to back out of being the lead and let the discussion go to where it is gonna, needs to, or wants to go. There is a comfort or a confidence aspect to that because you start to lose control. Some people are really concerned with maintaining control in the classroom.

Rod, a team leader, noted that when faculty members maintained control of the classroom, problems emerged. He pointed out that students often shut down.

> There are instructors that tend to shut down staff groups. In fact, I have one of them. And they [students] tend to just fold arms, stack arms. When you're done running your mouth and giving us all those great pontifications of your knowledge and your wisdom, just let us know when class is out.

Bob said that his authoritarian tone in the classroom caused discussion to break down. He noted,

> I think an autocratic tone in the classroom and by the same token, an overly permissive tone where the instructor loses the control of the classroom and loses the respect of the students. I think these can be counterproductive. Some of that has to do with credibility.

In some cases a few faculty had bad experiences with overzealous or highly emotional students. When students faced ambiguity or encountered new information that challenged their assumptions, they became hostile. Students did not always know how to engage in civil discourse or use their critical thinking tools. Sometimes students wanted to control the classroom. Faculty had to balance the classroom environment but they also

allowed students to sort out ambiguity. Discussion balanced the faculty roles of facilitator, teacher, and learner. Bob noted,

> Sometimes conversations become heated and angry, and it's our obligation to monitor that and to avoid that. But one way to prevent it is to simply never relinquish the microphone. If you as an instructor do all the talking, A, you'll never get off-topic and, B, as far as you're concerned you'll never lose control of the classroom. But there is very real doubt as to whether your students will embrace the ideas if they're not allowed to express their own opinions.

Gerald provided another story about negative student attitudes.

> If you are running into personal problems with the students not wanting to be enthusiastic or getting involved, a constant negative attitude—it only takes one student to be a toad in the road in the classroom, to infest everyone else. Everybody else may want to participate and he is souring the room and the atmosphere so badly that you want to deal with them. . . . Some are selfish and some have real life things going on. Some have post-traumatic stress disorder [PTSD]. Those things impact on how far and fast a student can progress or a group can facilitate in a classroom.

Don indicated he thought about the possible paths that discussion took in the classroom and he developed questions that guided students toward the learning objectives.

> I've tried to ask the right questions to steer them back, but I've often—I've more often than not, I found that I had to intervene and say, "Good points, but we're off of—we're off of topic; we need to get back on to what we were originally talking about." And so I have not discovered any tactful or ingenuous way of guiding them back on track. I felt that I had to intervene, more than anything else.

Discussion Teaching and Faculty/Student Attitudes

According to Brookfield and Preskill (2005) discussion in democratic classrooms had specific dispositions, including hospitality, mindfulness, humility, mutuality, deliberation, appreciation, hope, and autonomy. Christiansen (1991) identified teacher openness, empathy, mutual trust, modest expectations, patience, and the faculty member's faith in discussion teaching as core attitudes. Wlodkowski (2008) identified attitudinal directions–perception + judgment → emotion → behavior that tie into the self-regulatory aspect of self-efficacy. "Theoretically, these four adult attitudinal directions integrate the self-motivation processes of self-regulation theory (Zimmerman & Kitsantas, 2005)–self-efficacy . . . with the cultural beliefs, values, and norms that adults bring to a learning situation" (p. 172).

Hospitality

Faculty practiced hospitality when they relinquished control of the classroom so students could engage one another in discussion. But less faculty control created higher risks when students explored new ideas. Sometimes discussion became unfocused, so students had to learn to police themselves. Some students reluctantly explored new ideas but felt constrained due to culture. A faculty member explained international officer behaviors when they entered into classroom discussion.

> The hardest part is motivating students from the Pacific Rim to participate in discussion and challenge the instructor. It was much easier to engage and motivate U.S. and European students. Once Middle Eastern students realized that I valued them and encouraged them to participate in their religious activities without prejudice, they generally participated at the same or higher level than the U.S. and European students.

In terms of participation, faculty members described techniques they used that drew students into discussion. Don stated,

> What I try to do is start asking pointed questions to those students [quiet students]. I begin to notice who are participating less than the peers. And I'm careful with that as well. I don't bombard any student with multiple questions, but I do start asking them questions maybe once or twice during discussion to encourage them to talk and make them realize that I'm paying attention to those that don't speak as much as their peers during the discussion period in the classroom. But I'm very careful with how I do that so I don't intimidate or make somebody, you know, angry or feel like that I'm just picking on them for the sake of it. So I—I'm very careful about that.

Another element of hospitality included patience. Rod said faculty needed patience and to "wait for answers to the questions that challenged their thinking and their assumptions." When some faculty members asked questions and students did not answer right away, faculty attempted to answer their own question. Brookfield and Preskill (2005) suggested techniques they used to manage student silence. First, when students became silent, they needed time to reflect before they spoke. Brookfield and Preskill reminded their students that they accepted silence in the classroom. Next, they analyzed the reasons for student silence. Some students feared they appeared stupid, felt unprepared, excluded, or had unhealed wounds from previous discussions or emotional confrontations. Sometimes, student silence signaled critical thinking. Consequently, faculty needed to

> Manage silence, because sometimes that will happen and that's okay. It doesn't mean they are not interested. It means many of them are still thinking about it. . . . How does the facilitator key off of other comments to ask further questions, because many times what a student will say will lead you down another viewpoint of the problem that would be very valuable to be addressed.

Rod talked about faculty restraint. He said,

> But after you challenge them, you've got to give them time to process that challenge or those assumptions in which you are challenging them, and you need to allow them to answer. Sometimes that will mean pregnant pauses. That's okay. You need to understand the differences between extroverts and introvert. Extroverts will talk first and think later. Introverts think first and talk later, but you'll get a much deeper answer from an introvert, so in facilitating a question, one of my experiences is the longer I allow them to answer the question and wait, the more quality of answer I normally get.

Some faculty invited discussion when they showed they willingly accepted alternative viewpoints. Many students lacked preparation for dealing with multiple viewpoints. When other students presented different perceptions, conflicts arose. Students encountered what Mezirow called disorienting dilemmas that contained emotion. Faculty with high self-efficacy beliefs prepared students for the emotional aspects of discussion. Less efficacious faculty avoided emotional discussion when they simply lectured students. Rod described his experience when he challenged student assumptions and ingrained paradigms.

> I welcome disagreements. That's the other thing I do. Some students are afraid to challenge their instructor. I love it! . . . I love debates and challenges, and you might even change my mind because I have just as much to learn from you as you do from me, and maybe I am looking at something wrong. Educate me. But if you disagree, you better provide a defense and you better be able to back it up.

Emotional discussions, when students faced new perspectives, engendered risk. Faculty with strong self-efficacy beliefs welcomed the ambiguity presented in the classroom; they relished the times when students challenged their statements. They sometimes changed their position on topics. Once students saw that the faculty member was a co-learner and did not step behind authority, they opened up and engaged in discussion of difficult topics. However, some faculty who had low self-efficacy beliefs about their discussion facilitation skills either avoided discussion of difficult topics or limited the amount of discussion in the classroom. When those faculty members

withdrew from discussion, students lost an opportunity to learn from one another and remained unengaged.

Mindfulness

Mindfulness meant that faculty listened to the students; they paid attention to the whole of what was being said. Dan described mindfulness in terms of critical listening.

> And critical listening skills need to be incorporated; all the while the facilitator has to be constantly thinking of, How am I going to accomplish the learning objective. How am I going to get the students to discover those truths, concepts, ideas that I think will be indicative of their learning the material for the course." I think critical listening implies the critical thinking skills, but it also includes your body language, your technique in being able to repeat back what someone has said to show that you are in tune to them. That you are picking out those key points within their statements.

Jim, who taught new instructors how to facilitate discussion in the classroom, found out through feedback from one of his students that he needed to listen to the questions students asked him. Jim admitted he had assumed he understood what a student had asked based on his prior experience. He recognized the question and jumped in with a response. He described his encounter:

> Sometimes your knowledge, you know, if you're too confident or you're too knowledgeable on a topic, you find yourself restricting the discussion or channeling it in a particular way. Just this past week I had an experience. . . . A student came up at the break and said that the previous hour was the most frustrating experience that he's had in a classroom in a long, long time because I wasn't really listening effectively. . . . He was asking questions, and the questions I was answering were questions that had been asked in previous classes. . . . His questions sounded similar to those I heard before . . . but his question had a bit of a twist on it, but I just assumed that I knew what he wanted to know, and it really wasn't what he was asking. I tend to get impatient with students who don't get to the same place the previous class did. Or I tend to think that they should remember from the previous class that they weren't even in. It was the same discussion as last week but with a different class.

Mindfulness also meant that faculty needed to listen for the emotional undercurrents in the classroom. Faculty needed to practice emotional intelligence and ascertain what students said. Chris noted that students faced emotional challenges and he had to take a holistic approach for each student.

> You can't belittle them or demean them . . . you have to be empathetic. They have multiple deployments, they are back with their spouses, there is tension, and they are missing their kids terribly. They are trying to make up.

Humility

Brookfield and Preskill (2005) described humility as "one's knowledge and experience are limited and incomplete and to act accordingly" (p. 12). Several faculty described academic humility in that they did not know everything about the classroom, the topic, or the students. As facilitators, they humbled themselves to learn from their students. Kyle was straightforward:

> I think being self-effacing; you know, being willing to put yourself out there, warts and all. As a young instructor, I wanted to be perfect, but I've realized that I'm not perfect and I think a lot of people realize I'm not perfect a lot quicker than I did. And so I think you are back to humility again, being humble enough to say, "I'm learning just like you guys." I think that if you do that, you can develop trust through honesty.

Kyle said competent facilitators needed humility,

> And some folks might be surprised at that. They might say, you know, lesson knowledge, or they might say presence. But I would think that if you are humble when you go into the classroom, you know, those things–you know the knowledge of your subject, presence, the way you relate to the students–those are all important things. But I would think, really, if you are truly humbled by the power that you are given as a facilitator, I think that causes you to try to do those other things well and your not so quick to judge [students].

Faculty lacked humility when they retained control of the classroom or needed to be the expert, the sage on the stage. Those attitudes devastated discussion. Rod elaborated,

> The other thing that can weaken your capability to facilitate is arrogance and ego. Again, if the students feel as though you think you're the fountain of knowledge, you've got a problem, because basically they're going to get your opinion but you're probably not going to get theirs.

Finally, Kurt said, "I'm smart enough to know what I don't know in the classroom when it comes to being an instructor for my students."

Deliberation

Faculty frequently described attitudes that reflected deliberation. Brookfield and Preskill (2005) defined deliberation: "democratic classrooms [are] highly contentious

forums where different points of view are forcibly, though civilly, advanced by as many different participants as possible" (p. 13). Don noted that student comfort in the classroom was a prerequisite for engaged discussion. He said, "I am very careful about my choice of words. And I'm always encouraging the students to talk. Now, I think I've done fairly well in making the students comfortable and encouraging them to do that." Kurt described deliberation,

> That is actually a big discussion builder [admitting he did not know something that a student had brought up in discussion], and it helps to build trust. Within a week or two of getting the class going, I will usually take that bold chance and just say, "You know what? What you said, I can't necessarily agree, but I want to hear more out of you. Tel me more about why this is. And who thinks that he's wrong? Who think that he or she is wrong? All right. Hold your thoughts. We're going to hear what this person has got to say. We'll offer up our rebuttals in 10 minutes."
>
> It's a courageous, gutsy move because you do stand the risk of losing control of this conversation. But, oddly enough, I found that you could almost read the reaction on the students' faces. Students actually say, "We can say things here and be heard. Or we'll say things and we'll . . .." I play that role all the time. I tell the students all the time; "If you're ever afraid of speaking up because you're afraid you're going to be preaching to the choir, don't feel that way . . .. Anything you tell me from your life experiences might be old hat to everybody else in the room except for me. Tell me something I don't know." . . . The other thing that I do is play devil's advocate. . . . "I want to know why you guys think this is important. I think you are wrong. Tell me why you are right. . . . Tell me everything on this slide is wrong . . . or you think it's right." . . . A lot of times the students will role-play. . . . They have fun with me.

Rod told about his experience with deliberation in the classroom.

> I welcome disagreements. That's the other thing I do. Some students are afraid to challenge their instructor. I love it. I tell them the more—I tell them the story about a major named Mike, who was a U.S. Marine . . . and he and I argued about everything. He disagreed with me so many times, which opened up other viewpoints. And what do you think he got for a grade? He got an A. He got an A because, number one, he disagreed and he gave adequate defenses as to why he disagreed. And it wasn't because he was trying to subvert the authority of me. He honestly just disagreed, and that opened up such great quality instruction.

Deliberation appeared to be closely linked to humility. Faculty who practiced humility in the classroom also exercised deliberation. Behaviors that demonstrated deliberation, or the consideration of alternate viewpoints, depended on the degree of the faculty member's self-efficacy beliefs. If a faculty member had strong beliefs, he or she

contemplated what students had to say and demonstrated constraint in responding. Less efficacious faculty demonstrated hesitancy to use their facilitation skills or they did not engage in discussion of difficult topics. Sometimes, faculty with low self-efficacy poisoned the classroom atmosphere so that students restrained themselves and did not challenge instructor viewpoints, or for that matter, viewpoints of other students. In some cases, a few faculty with low faculty self-efficacy beliefs about their conflict resolution skills allowed hegemony and power imbalances in the classroom.

Discussion Teaching and Partnership with the Students

Partnering with students for discussion began when faculty set the tone in the classroom. Commonly, faculty referred to setting the tone in terms of expectations, rules for discussion, or standards of behavior. Christiansen (1991) described partnership as "a collegial sharing of power, accountability, and tasks" (p. 16). This process, Christiansen explained, allowed students to take on learning and discovery for themselves. Jeanette described partnership in terms of good classroom experiences.

> Good experiences are when the students are interested in the subject. They get passionate about it. Sometimes they get a little hot-headed about the subject, but they are talking and sharing experiences. You are just kind of guiding them along with questions of "What do you think about that? How do I . . . " or I shift the question to someone else. So you try to get everybody talking. And those are good experiences

Erin described the partnership as student buy-in to the process. "Students generate their own buy-in when they realize they will see the material again in future lessons." She noted that students became interested when they realized the relevance of material in the class to their future assignments.

Alliances among faculty and students were also fragile. When faculty or students broke their partnership, regaining trust proved difficult. Faculty members related experiences in which they allowed their emotions to gain control or they had "become miffed" when students presented differing views in class. When faculty gave in to emotional responses, they created barriers and, in the process, lost credibility with the students. They worked hard to regain trust. Bob related his experience when his emotions got in the way of discussion.

> It has happened to me where some altercation with a student poisoned the atmosphere and from then on, it was very hard to conduct or facilitate a productive discussion, because, you know, whatever happened between a student and me or between a peer and a student just poisoned the atmosphere and that becomes a distraction.

Jeanette related her experience,

> I can't say I have had an experience where a discussion did not go well because a student got hot-headed and walked out. I have not had . . . disrespectful, I guess is the word that I am looking for. . . . I haven't had any experience where there had been disrespect.

Partnerships with students entailed risks. Kurt said, "You have to be courageous enough to trust your students." Chris described his experience that had a happy ending. He intentionally moved from a teacher-centric to a student-centric classroom and discussion based partnership.

> I was sent on my third year to the [name of institution deleted] to take a discussion leadership course. In the process, I also read a book [name of book and institution deleted]. When I came back, I realized that the school was lockstep and not in tune with adult education in terms of really allowing adults to participate. That the faculty did more talking in most cases than they should. And the students had come to expect, basically, to be hand-fed the material in the lesson. After reading several articles in the book and participating in the seminar, decided to do something different. Three years ago, I had a staff group that was exceptional and we changed the curriculum a bit. . . . It was a dynamic staff group. They had a good time. They participated and I even had them break down into smaller groups and read books on the interagency in the Iraq war.

Partnership included cultural sensitivity in which all students, no matter their background, gender, ethnicity, or culture, were valued members of the learning community. Don said,

> Good instructors are going to have to feel out that student and get to know that student: what promotes discussion and what does not. English competency can inhibit participation and discussion. However, most instructors I have worked with say that, at some point, they want to ask an international student, "What is your perspective on this? How does your country do this? How is it different" How is it similar? Why?" So you almost treat an international student as an introvert. You need to give them time to think about their answer in English and phrase it, express it in English. Just like you give an introvert time to think through the answer before calling on them.
>
> That also goes back to expectation. If early on, the international students recognize that periodically they are going to be asked, "How do you do it in your

country? Why do you do it differently in your country? then they can anticipate that in any given lesson in the future, that it is something they need to be prepared to discuss. Others, with higher levels of English, they might just as well be a U.S. student in the classroom.

I have one of those now, very competent in several languages, and I don't have to spur him on. As a matter of fact, he is generally one of those who says, "Why do you do it this way? We do it differently in NATO, We do it differently in my country. This is the way we do it. I see some value in the way you do it: Can you explain more detail or provide better understanding to me of how you doing this, because this is something that I want to take back to my country." It varies: you have to gauge the individual students. But, expectations are still there. They need to contribute; they just may not be comfortable initially.

Jim described partnership in which students owned the process.

Well, the ideal would be essentially no facilitation at all. In other words, the discussion is transpiring of its own accord, going where it needs to go as a result of the ownership of the discussion by the students themselves.

As the majority of faculty gained experience, they moved towards student-centric discussion. Faculty frequently described a sense of enjoyment when discussion took on a life of its own. In many cases, the faculty member simply kept track of the discussion to ensure it captured the learning objectives. One instructor said, "It is easier to listen and evaluate by just sitting back and watching the exchange. I can tell you, I have a better handle on who is doing what then I ever had before."

Some faculty with high self-efficacy about their discussion facilitation skills took risks, and if the experiment failed, they tried an alternate method of engaging student interest. These faculty used their facilitation skills in ways that encouraged different viewpoints and deliberately considered what students had to say. Less self-efficacious faculty had less confidence in their discussion facilitation skills, especially if the lesson material was new or difficult, and they lectured or used the Power Point slides in the lesson plan to avoid failure.

Theme Three: Preparation

In discussion teaching, the faculty member shifted from transmitted information to facilitated learning. Garvin (1991) wrote that the transition to discussion teaching meant faculty acquired responsibility for content as well as the process of "who, how, and when of discussion" (p. 11). The preparation process became complicated, because

faculty considered multiple viewpoints rather than lecture notes. Additionally, instructors planned for in-class dynamics that included a supportive environment. Wlodkowski (2008) suggested strategies to create a motivating environment by using instructional plans based on the motivational framework for culturally responsive teaching (see p. 118). The motivational framework required thought about inclusion (create or affirm a learning environment), attitudes (a favorable disposition to learning), enhanced meaning (challenge the learners), and engendered competence (affirm understanding). Wlodkowski provided specific strategies focusing on each of the previously mentioned areas.

Brookfield and Preskill (2005) noted that preparation for discussion meant students needed easy access to class reading materials and faculty had to structure pre-readings and clarify expectations. Preparation also meant that faculty modeled discussion, and helped students who felt unprepared. Brookfield (1986) stated that faculty needed to be subject matter experts as well as to understand facilitation techniques. He pointed out that students had to understand critical thinking and develop reasoning skills.

Bandura (1997) adamantly stated that self-efficacy varied based on context, it changed in degree based on task difficulty, and it differed across domains of functioning. As faculty prepared for discussion, numerous tasks required their attention. Faculty self-efficacy for one task, say pre-reading student materials, required different self-efficacy beliefs than visualizing the flow of the class or developing critical thinking questions. Likewise, faculty may have had high self-efficacy when they prepared for a specific topic but low self-efficacy when they considered a related, but more difficult topic. "Self-belief does not necessarily ensure success, but self-disbelief assuredly spawns failure" (Bandura, 1997, p. 77).

Faculty unanimously agreed that preparation required a lot of hard but necessary work. Some instructors explained they started their preparation weeks in advance of class, while others prepared only a few days prior to executing the lesson. Most of all, faculty stated they determined their own method for preparation. Rod said his most effective preparation occurred a few hours prior to the start of class.

> So the other thing is, how do you prepare yourself? You've got to know yourself. If doesn't do any good for me to review a lesson two weeks out: doesn't do me any good. . . . The most effective for me is about 72 hours prior to the lesson, I live, breathe, eat, and sleep it. I'm reading about it. I'm continually going over it in my mind. I'm adjusting my slides, and like, the last two hours before I teach is usually when I get some of my most brilliant ideas of how I'm going to construct this class. I'm hardly ever wrong as far as having something flop, so you've got to know yourself.

Numerous faculty members pointed out the dire consequences of unpreparedness for class. Rod candidly admitted he failed his students when he resorted to Power Point slides because he was not ready for class.

> Well, I can tell you what I have experienced personally, myself, and there are times where I have failed my students. What has weakened my facilitation? Number one, the overuse of Power Point or the overuse of graphics. As soon as you start putting up a bunch of Power Point slides, the focus goes from facilitation, basically, to instruction. Now, that's okay to mix the two. But if you want to facilitate discussion, you can't be going through slide after slide after slide.

Preparation and Envisioning the Flow of the Class

When preparing for class, several faculty members asked themselves "What must the student achieve to be successful in the class?" Some faculty had a difficult time answering this question, even with the lesson author's learning objectives clearly stated up front. One instructor commented,

> What is it that we really want the student to walk away with? That he will be able to remember? And that is kind of, it is beyond what is in the curriculum. It is a balancing act that the facilitator has to deal with: the conditions, himself, the group dynamics, the content, curriculum, and what the Army wants at the end. So you are balancing all those.

Dan reinforced the importance of thinking through the questions for student pre-work. He talked about how he prepared the students.

> I have the students think ahead of time about some of the topics that you want to discuss. Ask the analytical questions in the lesson and the homework handout that primes them for the discussion. And then also, war game, as the instructor [of] where these particular questions may go based off of the understanding of the students, their previous experiences, the current operational environment, and the learning environment in the classroom. Where do we anticipate these going? How am I going to use these questions to shape better understanding of the topic?

Bandura (1997) wrote, "Beliefs of personal efficacy also regulate motivation by shaping aspirations and the outcomes expected for one's efforts. A capability is only as good as its execution" (p. 35). Later, when Bandura discussed efficacious adaptability in occupational roles, he pointed out, "A high sense of self-efficacy fosters innovativeness" (p. 449). So, faculty with high self-efficacy beliefs developed higher aspirations for their students and the outcomes of the class. They looked for innovations that overcame obstacles inherent in the CGSC imposed environment and created classroom environments that supported the visions of the class end state.

Preparation and Subject Matter Expertise

In terms of competence, faculty stated they needed to understand the material. They had to understand how to facilitate discussion. In other words, they instinctively understood what Garvin (1991) meant by balanced lesson content and classroom dynamics and processes. Faculty described content expertise in terms of comfort with the material that occurred only through careful preparation and reflection about prior facilitation experiences. Don said,

> The person has to be well prepared. They have to be comfortable with the information. . . . The facilitator, the instructor, has to know the subject. He doesn't have to be an expert. He has to know the subject so that he or she understands what's the right question. I found that as long as the instructor is comfortable with the subject, then the instructor can modify in order to accommodate, you know, a unique discussion that is not similar to what occurred in the previous year.

Almost all faculty members stated they prepared for discussion when they had read the material and then expanded the depth and breadth of their understanding through additional research. Additionally, they considered the critical thinking questions they asked during the discussion. In order to develop good questions, faculty needed to understand the learning objectives and the possible routes that the discussion took to get students to the end state. Rod explained,

> You need to read the material well, but you must also be a fortuneteller. You have to be a prophet. You have to know what will work and what won't; what questions they will find challenging and what other questions will be insulting.

Darrell said that he achieved the end state for his classes not so much through subject matter expertise as through a visualization of possibilities.

> I don't expect to be the expert, but I expect to know where I am supposed to go, where we are supposed to go, what the pieces are that will get us there, and it helps if I have taught the lesson before.

Similarly, Bob reasoned, "Knowing the material allows you as the instructor to seize on those concepts or related concepts in your students' discussion that you can then link back to the broader concepts in the material." Gerald believed expertise included more elements than technical competence in tactics or logistics. He explained faculty expertise guided students' cognitive development.

> It [expertise] is much broader. I think you have got to have not only your tactical, professional experiences, matching doctrine . . . but you are conversationally familiar with what is being discussed. That goes a long ways. But you are also invested with the teaching side, you know. What is it that my students need to grow? What do they lack that they need to grow in a certain direction that I can facilitate? So you are interested in the people aspect of growth . . . which is often expressed in excitement and enthusiasm. Be able to adapt and use it for relevance. The more experience one has, the more confident they will become in their baseline knowledge.

Some faculty who lacked a vision for their class ended up with problems. Likewise, those who had vision but neglected effort faced failure. Bandura (1997) observed, "Great innovators and achievers attain the supposedly unattainable, not by fervent hope but by unshakeable self-belief and dogged effort in the face of innumerable obstacles" (p. 77). Some faculty, for whatever reason, failed to prepare for class. Rod talked about the consequences when unprepared faculty entered the classroom.

> Field grade officers will sniff that out in a New York second. All they got to do is ask you one question about that reading and if you're clueless, they smell blood in the water. Here, they prepared and you haven't. Nothing is worse for a student than that they've done all the work to prepare and their instructor hasn't taken the time to prepare. You'll lose credibility. And once you lose credibility, good luck getting it back.

Preparation and Pre-Reading Materials

Almost all faculty had misgivings about the amount of reading material in the lesson plans. For instance, Erin patterned her preparation based on the learning objectives. She asked herself, "What is it we are supposed to do?" She then considered the reading material and asked herself, "What are we giving them to read?" She pointed out that too much reading material produced negative results in that students eventually

ignored all reading assignments. Erin used relevance as a criterion when she discarded material. "If you give them a lot of stuff to read that is not relevant or you are not going to talk about it, then they will stop reading." Erin not only pared back the readings, she also reviewed the questions in the advance sheet material and tied the questions into the pre-reading materials. "I am more conscious of the questions I ask them. Sometimes we ask them questions and I think, 'What does that have to do with the learning objective?'"

Don observed that over a period of time, students neglected their preparation for class. They became tired after spending long days in the classroom, so faculty had to focus the readings. Don pointed out that he tried to "direct students to just relevant readings and do away with–and I know this sounds a little backwards, just point them towards the readings they really need to get accomplished for the lesson." He also pointed out that not every day yielded golden discussion. When he experienced those days, he said, "The instructor has got to be ready to start treading into lecture mode . . . and I've had some of those days where I had to do more talking than I expected."

Kyle stated that he owned the lesson; it no longer belonged to the curriculum planner. He ensured the lesson plans added something relevant to the student learning experience.

> I read, and I try to focus their readings. Once I have an idea of how my lesson is going to go. . . . I think you have to make your own [lesson plan]. You have to prepare yourself by preparing to teach the curriculum, but you have to own it."

Dan described his classroom failure due to poor preparation.

> Considering that very bad experience where I asked the question and waited 20 seconds to make sure that all the intuitive thinkers had the opportunity to think through the answer and provide an answer, I realized that I did not really set the stage for that lesson. The students came in; they had done the homework. I followed the lesson plan with the concrete experience that was supposed to generate energy, affective learning, as well as cognitive learning, interest, but it did not. . . . So a good class starts off with a common understanding of what we are going to be talking about, why we are going to talk about it, its relevance. The students recognize it. They are ready to learn. Now it is just a matter of generating the discussion with the right kinds of questions and letting it run on its own.

Erin noted that CGSC relied on student participation in the classroom for a significant amount of their grade. She said, "Asking the right questions to see if students have the breadth and depth to achieve the prescribed level of learning is

> critical . . . [so] facilitation is very important and preparedness is dramatically important."

Preparation, Faculty Collaboration and Feedback

Although collaboration among faculty increased their self-efficacy for facilitating discussion, the opposite occurred if faculty had no time to meet prior to teaching a class. Don noted that team teaching had special dynamics, especially for preparation. He said,

> If you are going to teach a class with another instructor in the same room, it just, it requires preparation and discussion between both instructors to understand, you know, what are we going to talk about? And be humble in the classroom, because a colleague may know more than you about a subject, so you have to set aside pride.

Faculty collaboration provided an opportunity for feedback. Erin, who was an adjunct faculty development instructor, stated,

> The institution pushes faculty to give feedback to the students. But faculty does not get the same benefit. There should be no difference with our faculty. Our faculty needs feedback. They need, you know, their mentors and their leadership to know exactly what they're doing in the classroom. They need to realize what the students are saying about them. And I think that when faculty are receiving timely feedback, that they're able to develop and get better at their trade. I don't know if we do that.

Preparation and Subject Matter Relevance

Curriculum gained relevance, Bob said, "When we reinforced the idea that the curriculum is an interrelated system of ideas and concepts, not simply segregated, stove-piped topics that have nothing to do with one another." Dan pointed out,

> They have to have the relevance, and if it is not developed, then a good facilitator has to be blunt and say, "This is why we are going to discuss this material. This is why it is important to you." Ideally, the students self-discover that. They identify the relevance. But sometimes that doesn't occur and when it does not occur, then the facilitator needs to generate that interest. Otherwise, the facilitator asks questions that get very shallow answers, and may only get those answers from the extraverted types in the classroom.

Dan talked about the preparation of students in terms of primed learning. He defined primed learning in terms of relevance and focused reading material,

> Ideal facilitation is asking a question based off of a primed learning experience that the students can relate to. That generates the discussion in such a way that the students continue that discussion from that point on without a whole lot of facilitation. The instructor then injects clarifying comments or new questions to

> keep the discussion going or to perhaps steer the discussion in a different direction, all the while trying to reach the learning objectives that are inherent in the lesson plan.

Dan said that students needed to think about how they applied their learning in the future.

> A problem that we may have with curriculum here . . . is you need this because you will apply this in the next three years, ten years of your military service. These are the kinds of situations where you may need to apply this. Within the learning model that we use in the College, that may be getting a little far into the lesson plan. But if they can't start making those connections and show interest, then the instructor, the facilitator, needs to generate that interest. Otherwise, the best-asked questions are not going to get to by the learning or the discussion in the classroom.

Kurt championed free association of ideas. He devoted time at the beginning of the class and students shared ideas without judgment or evaluation. Kurt felt students gained ownership and relevance. He said,

> Good facilitation is . . . allowing the students to free associate for just a minute. . . . Let's just throw stuff out. There's nothing that's sacred here. Throw it out. Let's get it all out on the table. Talk it over, free associate, no rules apply at all. . . . And what you'll find is, a lot of times, that students will sort of self-direct where their interests are. That's my job as a facilitator, of course, to keep them on task and on track, but sometimes we find that in the course of conversations like this, that the students themselves will actually take a direction that was totally unexpected by me . . . and we may actually get to the end state a little bit quicker.

For the most part, faculty understood the curriculum's learning objectives. They owned the preparation process. Faculty noted that as students saw connections in the material, they prepared several lessons in advance and communicated where the material headed. Kyle said,

> I try to be two lessons ahead because, in general, our curriculum links very well and you want to look for opportunities to say, "Great point, but we are going to discuss that in two classes from now." Otherwise, students sometimes become frustrated because they see patterns developing and you don't address those patterns.

A tactics instructor described his technique for generating relevance and student ownership of the lesson.

> Having students develop their own artifacts, their own notes, their own relationship drawings, things within the classroom, is better than giving them a

> Power Point presentation that they will download later and review at their leisure. If we do have Power Point, the students tend to take minor notes . . . and add them later on to the Power Point. But, if they have to draw their own diagrams, if they have to figure out a way to organize their thoughts, that helps them to learn, creates a learning environment that fosters learning, and it lends itself more . . . making connections and volunteering those connections . . . to the classroom.

Preparation and Classroom Environment

One faculty member stated, "The facilitator has to be prepared. They have to be critical listeners. Students are sharing in the teaching as well as the learning." When students shared in the teaching, faculty had responsibility to set conditions for success. Chris ensured students understood the learning objectives in the material and knew what was expected of them. In his seminar, students conducted the class. Chris stated,

> I do not get in front of the classroom. I find an open chair in the horseshoe . . . Then I will sit in the class and say, "Gentlemen, ladies–proceed." I will just watch the exchange. Sometimes I will take notes. Sometimes they bring in points that, you know, that we should discuss in the subsequent class. . . . I will allow for deviation, as long as we come back to the objectives. But when they get way out of line, I will pull them back in, and that is all I do.

Dan stated his expectations early in the class that students come prepared to share at least one thing they learned.

> I give them the recommendation early on in the course: come to the class with one nugget. Bring something that was profound to you from your homework preparation. Bring in a question that is burning for you, that you don't understand or want more information.

Rod not only assigned readings and questions, but expected students to facilitate discussion.

> I have what they call a team-teaching concept, where every student in my staff group is broken down into a team of two. . . . I want them to facilitate, but I'll also give them a question to facilitate. . . . You do run a risk when you do that, but I always let them know ahead of time what they can expect, what we're going to discuss. Some of the most talented facilitators in your staff group [seminar] sit among the staff group. If you give them a chance, you will be amazed at how well they can facilitate.

Proper preparation created an environment that heightened student willingness to learn. Darrel described his experience:

> You make everyone feel comfortable in the room. If things are constantly in flux, there is stress. You have to deal with those stress factors. I believe that students

> are not ready to learn until they have all the distracters out of their way. And sometimes they just need to vent. They just want to get those emotions out, get that frustration out. There is a way to do that before anyone starts talking about the content.

Several faculty members pointed out that competent facilitators exhibit energy and enthusiasm. Energy and enthusiasm create an atmosphere that fosters student buy-in, according to Erin. She explained that enthusiasm translated into an atmosphere of enjoyment,

> Adult educators, they've got to be prepared. They have to be authentic, and they have to be energetic. They have to try to, you know, motivate through their enthusiasm. I don't know if they have to be subject matter experts, necessarily. . . . We know that our students have a lot of experience that some of our faculty doesn't have. But the other thing, the preparedness, the knowledge of the content, the enthusiasm, and actually valuing what the students say and what they are teaching. All of this will add up to being fun. And when students enjoy a class, that's the absolute best measurement of whether something is really valued and the instructor is successful.

Some faculty described the standards they established for discussion. Students came to class prepared, they participated in discussion while in class, and after class, they reflected and provided feedback to the seminar. Darrell said he liked to "clearly establish expectations early on in the academic year." He told students, "Listen, when we are going to have a discussion, you have got to read the stuff. It is a lot. Figure out how to read it effectively."

Darrell described why expectations were so important. He told how he failed to establish expectations for discussion at the beginning of a school year. His oversight created an ugly class,

> When you do come into the classroom, they know, the students know, what to expect. It's sort of like, you wanted me to actually read that stuff and understand it so we can talk about it in class? . . . I ended up just pitching the lesson, and I hated it, and they did not like it very much. But, it was the best we could do.

Preparation and Institutional Responsibilities

Several faculty members commented about the institutional role in student preparation. Some faculty discussed the time they needed to accomplish class preparation decreased as schedule distractions increased. They thought the institution became less sensitive to faculty preparation needs. When not in the classroom, faculty

said they were overloaded with additional duties, meetings, and curriculum development. Additionally, the institution had responsibility for relevant, balanced, and focused lesson plans. Don described how institutional failures affected his preparation.

> Hinder? Oh, let's see. Well, when I talk about well-prepared lesson plans, things that hinder is lack of preparation time. I am not, I'm a person that requires time to prepare for a lesson. It just takes me longer than most. I can't walk into a classroom cold or pick up the lesson plan the night before and just expect to be able to just, you know, wing it.

Several faculty members pointed out that the institution played a role that enabled faculty development to facilitate discussion. When the institution ignored or played down its responsibility, the consequences reverberated into the classroom. Darrell noted that two- or three-week breaks between sustainment lessons caused students to forget previous material. Hence, faculty felt they constantly reviewed old material and cut short future lessons. Darrell said,

> By the time I get back to the role of sustainment, I have to repeat, to connect it to three weeks' previous lessons. The students have shelved that way back in their brain cells, if they remember it at all. So that disjointedness really inhibits the facilitation of instruction. You are constantly having to repeat things they should already have had. I can't get to the next level because it [curriculum] is physically displaced from three weeks ago in time, but also in priority.

Throughout this section, faculty consistently referred to focused and relevant pre-reading material. They established expectations and rules for discussion. Faculty delegated responsibility of the classroom to the students. Students developed discussion based on their preparations. Additionally, faculty noted that preparation did not occur in a vacuum: They had to collaborate with other faculty members. Failed preparation, by students or faculty, damaged relationships and set back trust and openness in the classroom. Finally, the institution's role in faculty preparation involved development of lesson plans based on ELM with discussion teaching at its core.

Theme Four: Questioning

Christensen (1991) stated, "Mastering the skills of questioning, listening, and response is a lifelong process for discussion teachers, but the gains are enduring and substantial" (p. 155). Questioning stimulates student thinking and meets the needs of the students. Mastering questioning mastery involves more than knowledge; it includes

"Asking the right question of the right student at the right time" (p. 154). Christensen noted that question patterns link prior content to future content; the patterns link the questions, so when faculty develop their questions, they need to do so with care.

Bandura (1997) wrote about enactive task mastery experiences as a source of self-efficacy (Fig. 2.3). Guided enactive mastery experiences, according to Bandura,

> Are the most influential source of efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to succeed. Successes build a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before sense of efficacy is firmly established. (p. 80)

The task of questioning includes development of critical thinking questions, use of questions to guide discussion, and assessing results of the questions. Faculty engaged in these tasks, when successful, receive powerful indicators of success that bolster their critical thinking self-efficacy. When they fail, the messages send equally powerful messages that debilitate what faculty believe about their critical thinking skills.

Brookfield and Preskill (2005) wrote, "How we ask questions can make the difference between a discussion that goes no where and one that turns into a complex communal dialogue that bounces all around the room" (p. 85). The question development process involves faculty preparing questions for the critical reading material, framing the discussion, generating discussion, and sustaining discussion.

Developing and Using Questions in the Classroom

As the majority of faculty described their experiences about facilitating discussion, many of them cited their ability to ask good questions as a factor that affected the quality of discussion. Faculty admitted that their ability to ask questions matured as they continued to teach. Initially, they failed to ask good critical thinking questions. Over time, however, they accumulated successes that increased their confidence. Rod described how his critical thinking and questioning improved over time.

> My experiences, primarily in the latter part of my professorship, has been very good, because what I believe a facilitator needs to do is to challenge the assumptions and the thinking of his students. . . . I believe that the quality of the class doesn't have as much to do with the material as it does the questions that you ask the class, and if they are not well thought out questions or if they are blinding flash of the obvious questions, you are going to hurt the adult learning environment because they are going to think basically you're wasting their time. And any time you have an adult learning environment, and they think you've

> wasted your time or they wasted their time, you have no momentum to build on. You are always working against the grain and it's very uncomfortable position to be in.

Dan said competent facilitators understood the questioning process and incorporated good listening skills into their repertoire. Dan realized he had to

> Summarize, repeat back, or ask for clarification on a comment made by students to show that they [faculty] are actively listening to the students' discussion. . . . Critical listening skills need to be incorporated. All the while, the facilitator has to be constantly thinking of, "How am I going to accomplish the learning objective? How am I going to get the students to discover those truths, concepts, ideas that I think will be indicative of their learning the material for the course?"

One of the tactics instructors stated he personally adjusted the lesson plans so they contained adequate critical thinking questions. The individual stated, "I find that if a lesson plan doesn't have a lot of questions that have been thoroughly thought through by the lesson author, I find that can be a challenge for me in the classroom."

Faculty clearly linked their ability to ask questions to critical thinking and highlighted one of the tenets in the CGSC philosophy, indicating students were not taught *what* to think but *how* to think. Erin, who was also an adjunct for faculty development, stated,

> I think we are to the point where we're modeling, you know, critical thinking and listening by the questions we ask, and we don't allow students to get away with presenting fallacies, you know. We're going to say, "Well, tell me some more about that. Where did you get that from?"

Rod admitted that his early questioning failures were his fault, not the students' fault. Primarily,

> The reason why is because I wasn't asking the right kinds of questions, I was not an experienced instructor, and I was not a good listener. I did not set the environment as well as I could have by any means.

Don stated, "And instead of going through a checklist of questions, if you understand the subject, then you can ask the appropriate question as a new—as a new subtopic, you know, that appears for that particular session." Jeanette noted,

> The ideal facilitator has, I think, has to be able to ask the questions, or put a subject out there and be able to pick out of what they are saying and guide the discussion. You can have a list of questions that they never hit one of the topics

> that is on your list. You get in the habit of being able to pick something out of what they are saying and guide them down to where you want them to go. I don't think anybody can teach you that, you have to learn it.

Kyle, a leadership instructor, tied critical listening to critical thinking questions. When he tied the two together, he strengthened his capability to lead discussion in the classroom.

> Well, I think you have to be willing to listen, and be truly willing to listen to what the student is saying. . . .The second piece is questioning. You listen and then you question to try to get depth. You're just trying to demonstrate a certain level of fairness in the classroom. You're just trying to continue to create that atmosphere where guys are questioning themselves, questioning their own thoughts, questioning the thoughts of their other classmates, and even questioning you as a faculty member.

Finally, sometimes faculty focused too closely on the learning objectives. They asked poorly worded questions that required specific answers. Those types of questions stifled discussion. Bob noted,

> Instructors who ask yes-or-no questions or who are seeking a very specific answer tend to limit discussion. I will see instructors who are so focused on getting the right answer they, they lose the opportunity or they miss the opportunity to respond positively to students' comments that don't meet their expectations.

Facilitating Discussion through Questions, Listening, and Response

An aspect of strengthening the capability to facilitate discussion involves active or critical listening skills. Christensen (1991a) sequenced listening right after questioning. According to Bob,

> Good preparation will allow you not only to connect your students' commentary to the material for this class, but will also enable you to make those connections between your students' experience, your students' observations in this class, and lessons you may have taught them in previous classes.

Faculty used their critical listening skills and assessed what the students understood about the material, based on the connections they made during the discussion. These connections were important for how faculty built their questions. Erin observed, "Facilitators have to be critical listeners . . . to be able to get the students involved where they're looking at each other and reacting and listening to each other, and not just the faculty member."

Erin's critical listening skills allowed her to assess how well students understood the material. Critical listening became a check on learning. Erin related how another faculty member had an epiphany when she said, "You can't talk about critical thinking unless you talking about critical listening 'cause you can't be a critical thinker unless you are a critical listener." His reply was, "Oh my, I'm using that. You know, I've got to use this because brigade commanders, battalion commanders, you know, general officers– they need to weed stuff out." Erin concluded that organizational leaders were "not making all the decisions: their staffs [were]. . . . [Leaders] need to listen well and then make a decision. Whereas, the staff is really scaffolding with thinking, you know, because they have to present a few options."

Teaching Students to Ask Critical Thinking Questions

Many faculty acquired skills to intelligently ask questions, role-play, or take a position and make the students use their critical thinking skills. They taught students how to take apart their thinking so that they either supported or rebuffed the assumptions. In other cases, faculty played devil's advocate and had fun with the students while they engaged in discussion and accomplished the learning objectives in the course. A competent facilitator understood the importance of guided discussion that relied on critical thinking questions.

> Before going to the classroom, a competent facilitator has thought through the flow or the potential flow of the discussion in order to anticipate what students may ask, what the students may answer, and how to build on that in order to steer the discussion in the right direction. A competent facilitator has come up with a way to demonstrate relevance or to encourage students to discover that relevance of the material ahead of time. The facilitator should also prime them for the discussion by providing within read ahead materials, their homework, topic sentences, or topic questions that will lend themselves to a good discussion.

Jeanette said,

> One of the big things, critical thinking and creative reasoning. It really is. If these guys have not learned anything in the last 8, 9, or 10 years, . . . they are going to get thrown into situations where they really have to ask, "What are my options?" There is no real right or wrong answer; there is no answer key . . . but if I can help you think through the problem and who do I need to talk to help me solve this issue, that makes them a better officer down the road. Maybe, that is what we are responsible for: To follow the Chief of Staff of the Army guidance.

> We need the warrior ethos and critical thinking. Not a leader that has to be told what to do, but take charge.

Kurt described his use of the Myers-Briggs Type Indicator (MBTI) that enabled students to use their critical thinking and creative reasoning skills. He grouped students according to their MBTI type. These groups discussed and solved problems using the unique strengths or skills individuals brought to the group.

> I like to do that every once in a while, to let people know that, you know, unique solutions. You need to be able to understand what is alike and what is different about people to crack a solution, to come up with the most imaginative solution. And, I've told the class before, there's lots of solutions, and there's a schoolhouse solution out there too. I'll give you guys higher points if you come up with creative solutions. I'm looking for stuff that takes you completely out of your box, out of your thinking. And so, when it comes to critical thinking, I'm also looking for creative thinking to match up with it. And so I draw upon that, and I'll let people know that we've got to meet each other in the middle and come up with solutions like that. Use all the skills that you have at hand.

Jeanette stated she watched student discussions and gauged when to guide them in another direction.

> You know, it just depends on the questions. As long as the questions are relevant, I will keep going. But when they are not relevant anymore, I will pull them back and say, "Okay, got it. Talk to me after the break." Or, you know, I will just cut it off. "All right, this is great discussion. It has nothing to do with the subject at hand, so let's move on."

Many faculty developed critical thinking that improved their question development and usage skills. Bandura (1997) believed mastering skills is important for self-efficacy development. He stated that building self-efficacy involved acquisition of "the cognitive, behavioral, and self-regulatory tools for creating and executing effective courses of action to manage ever-changing life circumstances" (p. 81). In the case of critical thinking, as faculty acquired the skills to develop critical thinking questions, they also increased their own cognitive development. Critical thinking allowed faculty to see themselves, and others, from new viewpoints. As faculty gained success with the critical thinking and questioning process, they were better able to "manage the demands of everyday life" (p. 80).

Theme Five: Faculty and Student Deployment Experiences

Most faculty had a wide range of opinions about combat deployment experience in the classroom. One extreme held that faculty deployment experiences had no bearing on the classroom, but facilitation skills did. At the other extreme, faculty felt they lacked credibility without recent deployments to Iraq or Afghanistan. Without deployment experiences, faculty sensed they lost contact with the students. Bandura's (1997) model of triadic reciprocal causation and the construct of self-efficacy included personal experience. Bandura stated that individuals, in an agentic capacity, made choices about the behaviors they engaged in that would lead to success.

Individual experiences, based on the choice of behavior, became part of the feedback upon which individuals reflected, and then they altered their choice of behaviors. Self-efficacy increased or decreased based on the behavior and the experience resulting from that behavior, as well as other cognitive and emotional processes. For some faculty, deployment experiences developed their feelings of self-efficacy; they had parity with the students. For other faculty, deployment was a nuisance, a punishment that adversely affected their sense of self-efficacy. These individuals looked for opportunities to develop their facilitation skills.

In discussion teaching, Brookfield and Preskill (2005) wrote about faculty support for student experiences. "Their experiences must be recognized and valued" (p. 29). However, faculty practiced some degree of caution. Deployment experiences alienated some students, excluded others, set the stage for hegemonic behaviors in still other students. They balanced differing points of view and ensured all students had a voice at the table. Finally, some faculty exercised caution when they described their experience so as not to shut down student discussion.

Benefits Sharing Combat or Deployment Experiences

Faculty overwhelmingly agreed that student deployment experiences contributed to the depth and richness of learning in the classroom. Combat experiences or deployment experiences also brought heightened emotions into the classroom. Kyle said,

> Well, it becomes quite powerful for the student. Their deployment experience is . . . a rich mosaic of emotion. And sometimes that emotion comes out in the classroom, and students don't understand it, faculty doesn't understand it, but it

> just comes out. And I think that's one of those surprises that you have to be willing to accept when you talk discussion teaching because it really is–your experience matters in discussion teaching.

Dan pointed out that deployed faculty gained credibility with the students.

> Faculty deployment experiences can promote discussion because the individual facilitating discussion has credibility with the students. Those instructors who lack that credibility, especially in our current operational environment, have a greater difficulty in getting the discussion going and incorporating experiences in the discussion.

Faculty deployment not only gained credibility for the instructor, but also intensified the learning experience. Rod described his personal experience after having been deployed several times, but cautioned that faculty deployment experience posed problems for faculty and students.

> It brings it [discussion] to a whole new level. It brings a common bond of experiences with the student and the instructor. You can get away without having it. It is really not a problem as long as you keep your ego in check. The problem is, when a civilian instructor or a military person tries to assert their authority and their knowledge about things in theater when they've not been there. And part of the problem is, in theater if you're gone from theater for more than six months, you're not current anymore. Things dramatically change that fast. . . . You want to show the students that at least you've had a taste of what they went through.

The facilitator helped students make connections among the material, their experiences, and the experiences of others. They wove the material and deployment experiences together and achieved higher levels of learning. Darrell thought,

> The facilitator's role has a much broader view and context to how experience fits institutionally, doctrinally, and other people's experiences from other students in the classroom or other staff groups he is teaching. To thread all those experiences together so it is vicarious experience. You may not have physically been there, but you have taken the good in what you learned from two or three students.

Jim, who lacked Army experience, felt that he brought a fresh perspective to the classroom. His perspective helped students step back for a moment to see things from another point of view.

> I came here as a [service component deleted] officer, and I had very different experiences. I think that the fact that I did not, wasn't knowledgeable, on Army issues was actually an advantage. I think re-greening is a good thing, but we have to remember that our faculty in the classroom, while they may not be content

> experts and they may not have recently deployed . . . are experts at facilitating discussion to get the students to a higher level of learning.

Sometimes students became myopic: they understood issues from a very narrow perspective. Consequently, faculty pulled away from the discussion and helped students use their critical thinking skills. Faculty helped student see that their experiences were not universal laws. Jeanette stated,

> You have to step back sometimes and say that my experience will be different from your experience. . . . It is important to see how things have evolved over time. They [students] will tell you that when I went to OIF [Operation Iraqi Freedom] in '03 or '04, it was completely different from '05 and '06. I think they appreciate the experiences. . . I think the experiences of the faculty and students are all good. It helps to keep the relevance.

Negative Aspects of Sharing Deployment or Combat Experiences

Students alienated members of the seminar who had not deployed. Faculty had to ensure everyone in the class had an opportunity to present their viewpoint. Darrell expressed his thoughts:

> Just because this person gets into the deployment issues, doesn't have five or six deployments under his belt, doesn't mean that he or she . . . doesn't have a useful perspective about whatever we are talking about. . . . And so you have that aspect that gets into the deployment experience discussion. Lots of times, people have told me, "I have not been there. I was not in Fallujah or Afghanistan" . . . and so they don't feel they have a seat at the table. That is the downside. The upside, if you can get your students to understand, yeah, you have been there and done that, you got the t-shirt. But you only saw what you saw. You only have your perspective. . . . There are other perspectives.

Although deployment experience provided relevance, depth, and breadth to seminar discussions, faculty questioned whether CGSC was too preoccupied with faculty deployment experience versus civilian faculty facilitation experience. Bob pointed out,

> There is a whole debate regarding civilian versus military faculty that hinges on that idea that recent tactical experience gives an instructor greater credibility and makes that instructor a better choice. I don't buy that. I think that the College, the institution . . . should value gifted educators, regardless of whether they're in uniform [or] whether they are civilian.

For a number of faculty members, deployment experience was a problem if the experience led to self-promotion in the classroom. Bob explained,

> Faculty experience, on the other hand, particularly deployed faculty experience, is, I think, less beneficial, and I risk the danger of imposing my experience as the only experience because I'm the instructor. Moreover, I think that we, as an institution, mistake currency and recent tactical experience; we mistake that for a quality in an educator. The fact that you have recent experience does not necessarily mean that you are a gifted instructor. And, in fact, may be counterproductive if you feel obliged in every class to dominate the discussion with your own experiences. When the instructor is telling their experience, he or she enjoys an unfair advantage in the classroom and that can lead to excess . . . We as an institution understandably, but mistakenly, overvalue the recent experience of our instructors.

Another problem was that faculty elevated their deployment experience over that of the students. Erin explained,

> It [deployment experiences] affects discussion in the classroom because it automatically is a signal to a faculty member that he or she is no longer the expert. And that, as soon as he or she realizes they are not the expert, they are now in seminar with people who have had the same or more experience in there, they are one of the group.

A few faculty who failed to heed the signal that they were not subject matter experts lost sight of their role in the classroom. Don shared his thoughts.

> It's not about the instructor being the expert in a particular topic. . . . I am not an expert in all the different branches or war-fighting functions . . . in the military. And so there's no way I can replicate 16 students and their experiences, and that's why discussion is important. So that the infantry officer can talk about things that he is very knowledgeable about, and then the logistician can talk what they're knowledgeable about, and you have this exchanging of information and knowledge to help the students better understand the topic.

Understanding the Student Experiences

Almost all faculty understood the affects of student experiences on the learning environment. Chris pointed out he got re-greened, which was a term for an Army deployment. He said,

> If you are really sensitive to the students, you pick up on their experiences and they will be your own. But you have to let them talk. I learn from the students. Their wealth of experience in COIN [counter insurgency] environments is overwhelming. I have heard stories that would make your hair stand on end. I have told them during class that I learn from them more than they do. That is my re-greening: after five years, I have had a lot. I told them the other day I was not re-greened, I was re-purpled.

Several faculty members reported that students who shared their experiences in the classroom also had emotional attachments to their stories. One faculty member mentioned that some students became very angry, while others broke down and cried. Shared deployment experiences had possible repercussions. Dan pointed out,

> A particular video or vignette that is discussed may have personal meaning. Some of the students come in with PTSD [post traumatic stress disorder] symptoms and those kinds of experiences can trigger responses to PTSD and can shut them down. It is very difficult, I believe, that faculty can know where that line is going.

Faculty understood that student personality and learning styles enhanced the shared experiences in the classroom. Dan stated,

> So, one thing that can strengthen the discussion is having the right mix of personality types within the classroom. Another thing that could strengthen is having a wide range of experiences. It is difficult to teach students particular topic areas if no one in the classroom has had any experience before. You are back to the sage on the stage. The instructor is the only one who seems to know the material; knows how it all comes together. No one can relate to it. It becomes very didactic. Instead of being discussion, when one or more students have had some personal experience in the area the lesson plan is about, it is much easier to turn to those students: "What were your experiences? Can you amplify what I have talked about? Can you give me an example from your previous experience?" Now, the students are working in facilitating with one another to learn, rather the instructor being up there giving all the instruction from the very front**.**

Another faculty member also wanted students with a variety of experiences. "It is difficult to teach students particular topic areas if no one in the classroom has had any experience before." He added,

> No one can relate to it. It becomes very didactic, instead of being discussion. When one or more students have had some personal experience in the area the lesson plan is about, it is much easier to turn to those students. Now the students are working in facilitating with one another to learn, rather than the instructor being up there, giving all the instruction from the very front.

Sometimes students assumed that since they had not deployed, their experiences were not valued in classroom discussion. A faculty member said,

> My own capability to facilitate discussion is very much a function of the student preparation: they have to sign up for it. They have to buy into the concept that you know, you can learn something from talking about it? Students get the perception that since they have not been to Afghanistan or to Iraq, they have

> nothing to say, they do not have a place in the discussion. This is far from the truth. They do have valuable perspectives, but their unwillingness to share because of their perception of having less value can stymie discussion.

Gerald reported he helped students connect the discussion to their experiences. He described that student connections involved the affective and cognitive domains and that good facilitation generated energy in both areas: it influenced student attitudes.

> I would say that good facilitation is not so much what it looks like, I think that is a bad word. It is more what it feels like. . . In my mind, it is attitudinal. . . . The student seems engaged. . . . They are bringing in experiences from their lives and those experiences foster other thoughts and other ideas from other students. The instructor brings those experiences and ties them back to the topic of discussion, the focus of discussion . . . or whatever the enabling learning objective was for the day.

Jim stated that competent facilitators draw out collective understanding of the students. He noted that critical thinking, listening, and connecting the ideas and concepts during discussion is an art form. Drawing on the student experiences transcends the experiences of the facilitator. Jim shared his thoughts about what he called a sense of impostership. Impostership, in his words, involved the mistaken idea that the faculty member had more experience than did the 16 students in the seminar.

> I mean, it would be very naive for me to think that I knew more than they do and that, you know, my talking, my dominating of discussion or lecture would be in any way appropriate in that setting. And so for me, its been useful and very effective tool to draw out the collective understanding of very experienced students who have an awful lot to offer in the topic areas that we discuss in all of those settings. . . It's critical not to be too arrogant or too self-involved or too pretentious. And yet, you have to be confident that, you know, discussion . . . will go where you want it to go.
>
> So it's, I guess, comfort with your own knowledge. More importantly, comfort with your ability to be engaged in a classroom discussion that is not teacher centric. I mean, other characteristics, other good listening skills are important. Good understanding of nonverbal communications by students, recognizing when someone has something to offer. . . Provide positive feedback both verbally and non-verbally. It's okay to let down your guard a little bit. It's okay to be human. It's okay to have questions that may seem like stupid questions, but sometimes those stupid questions generate good discussion as well, so, I guess the overarching critical characteristics of a competent facilitator is genuine concern for the learning of the students.

Deployment experience brought both opportunity and threat to the classroom. Opportunity involved relevance, depth of discussion, and breadth of understanding. Threats posed by shared deployment experiences to the environment involved possible alienation, exclusion, and myopic thinking. Deployment or combat experiences provided opportunities to connect material to student, which generated relevancy.

Chapter Summary

This chapter provided the quantitative and qualitative results of the mixed methods study. The quantitative section described the survey administration for both the Army Management Staff College pilot and the survey sent to faculty at the U.S. Army Command and General Staff College. Results of data analysis using SPSS showed that quantitative data had a normal distribution and homogeneous variation; therefore, a one-way ANOVA was an appropriate statistical measurement for significance. The ANOVA results indicated no significance except for the independent variable of leadership position. Post hoc analysis showed the sub-factors team leader and no response contributed to the significance.

This chapter also contained descriptions of the qualitative data analysis that involved multiple inputs through member checking, joint coding, and researcher reflection. A qualitative data analysis package, MAXQDA10, aided the coding process. Emergent themes included classroom environment, discussion, preparation for discussion, questioning, and deployment experiences.

Most importantly, this chapter explored faculty self-efficacy beliefs through the descriptions participants provided about their classroom experiences. The CGSC imposed environments (institutional and departmental) affected faculty self-efficacy beliefs. But, Bandura (1997) also noted faculty were more than mere spectators. They possessed agentic capacity and made choices about how they reacted to the imposed environment. What they chose to do activated the selected environment. The selected environment offered opportunities. Some faculty took advantage of those opportunities while others became "enmeshed mainly in its punishing and debilitating aspects" (p. 163).

Finally, faculty who grasped the opportunities offered by selected environments pulled together social systems and other resources from which they created their classroom environments. Within the created environments, faculty engaged in the tasks that comprised facilitation. Bandura noted self-efficacy was not a global construct: It was task-specific. Within the created environments, faculty may have had high self-efficacy for one task and less self-efficacy for another. If the difficulty of the task changed, or the context somehow changed, then self-efficacy beliefs changed, as well.

The level of self-efficacy beliefs determined the types of behaviors faculty engaged in, and those behaviors became visible as classroom practices. If their behaviors succeeded or failed, faculty incorporated the results into their self-efficacy beliefs and made choices about other behaviors (Fig. 2.4). These classroom practices, in turn, affected the learning environment, facilitation of discussion, and preparation for class. Faculty self-efficacy influenced how they developed their critical thinking skills, envisioned the flow of the lesson, and guided the discussion through the process of questioning. Finally, self-efficacy influenced the degree to which faculty allowed shared experiences in their seminar. Self-efficacy beliefs influenced faculty decisions as to whether they relinquished control of the classroom, allowed students autonomy to explore complex issues, and develop critical thinking skills to make meaning from what they experienced through discussion.

CHAPTER 5 - Discussion

Introduction

This chapter will provide a summary of the study, briefly describing the research design, the restated problem, and the primary quantitative and qualitative research questions. Following the summary is a discussion of findings for the research questions. The final sections include implications for practice, recommendations, recommendations for research, and a reflection on how this study could have been improved.

Study Summary

Research Design

This study measured faculty self-efficacy beliefs about their capability to facilitate discussion in small seminar classrooms. A mixed methods sequential explanatory design for data collection and analysis supported a holistic approach for this study as discussed in Chapter 3 (Creswell & Plano Clark, 2007; Day et al., 2008; Morse, 1991a; Tashakkori & Teddlie, 2002).

Restated Problem

The problem was to examine if independent variables (gender, age, ethnicity, academic title, leadership position, education level, and teaching experience) influenced faculty self-efficacy beliefs in the context of small seminar environments.

Research Questions

The primary quantitative research question was, "What are faculty self-efficacy beliefs about their capability to facilitate discussion in small group seminars?" The secondary questions were stated as null hypotheses.

$H1_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable gender.

$H2_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable age.

$H3_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable ethnicity/race.

$H4_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable education level/degree.

$H5_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable teaching experience.

$H6_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable academic title.

$H7_0$: There is no relationship between the dependent variable faculty self-efficacy beliefs about facilitating discussion in small group seminars and the independent variable leadership position.

The primary qualitative research question was, "How do faculty perceive themselves as facilitators of discussion in the classroom?" The qualitative interview protocol is in Appendix F.

Discussion of Findings

Setting the Context for the Discussion

The CGSC developed leaders within a larger context that included its headquarters and Training and Doctrine Command (TRADOC), as well as the U. S. Army. The next sections relate the Army's leader development and education program at the CGSC in its present state, as described by faculty members, to the findings, implications, and recommendations in this study.

Global Complexity and Rebalancing Army Education

Chapter 1 of this research highlighted the intricacy of transnational problems and the demand for leaders who have the cognitive capacity to make decisions under increasingly complex conditions. According to the Army War College (2009; also see Casey, 2010), a highly competitive international community sought answers to environmental challenges, decreased resources, shifts in population demographics, and new political-military threats to security that led to "persistent conflict and hostility" (Army War College, 2009, p. 1). Within this environment, Army leaders needed to possess the capacity to address the emerging international demands. "We are developing our leaders in a **competitive learning environment** [bold original] and it is in this environment above all others where we must prevail" (p. 1).

The Army acknowledged that it needed to realign capabilities to meet increasing complex international demands, but that its leader development programs were out of balance (U. S. Army Headquarters, 2011; Army War College, 2008, 2009). The Army explained that it required "leaders who are confident, versatile, adaptive, and innovative" who quickly understood the context in which they operated but also acted quickly within their understanding (Army War College, 2009, p. 3). The Army understood that rebalanced leader development would produce capacity to meet complex operational environments. They developed a framework, starting with the Army War College (2009) model shown in Figure 5.1.

The framework in Figure 5.1 reflects the earlier Army Training Leader Development Model in the ATLDS (Army War College, 2008) document. The ATLDS model identified the three domains of training, education, and experience, supported by assessment and feedback as well as by the Army values. Training and Doctrine Command's (TRADOC) Pamphlet 525-8-2, entitled *The U. S. Army Learning Concept for 2015*, reinforced the idea of three learning domains but noted they "primarily function independently in the current environment" (TRADOC, 2011, p. 43). The primary focus of this study was the education domain in the ATLDS model, but soldiers bring experiences from the training and operational experiences domain as well.

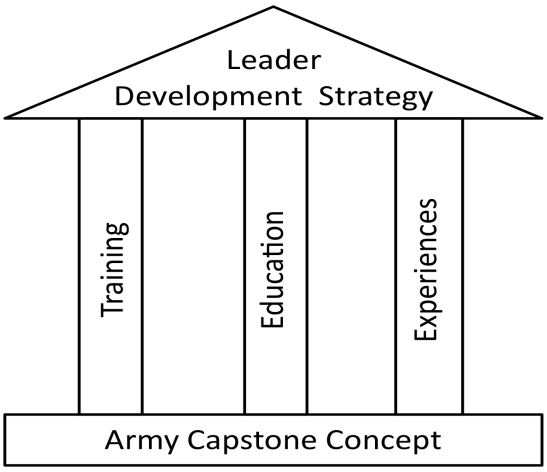

Figure 5.1 Leader development framework. Adapted from *A Leader Development Strategy for a 21st Century Army* by the Army War College, 2009, p. 7. Not copyrighted.

The U.S. Army Learning Concept for 2015

The TRADOC Pamphlet 525-8-2 (2011) recognized the contemporary operating environment complexity. "We live in a much more competitive security environment. This means that we have to learn faster and better than our future adversaries. Stated a bit differently, we must prevail in the competitive learning environment" (TRADOC, 2011, p. 1). According to TRADOC, the learners within the Army had changed along with the environment. The generational differences among students and faculty produced an entirely new dynamic that the Army needed to address if it wished to successfully adapt its training and education systems to meet learner needs. For instance, technology connected the learners in innovative ways and produced new expectations about the learning environment. The *U. S. Army Learning Concept for 2015* (TRADOC, 2011, p. 12) stated,

> Digital age learners will not accept learning environments that do not provide enough support, feedback, or clearly demonstrate the relevance of the learning material to their lives. Social interaction and team participation are increasingly important; therefore, the future learning model must provide more opportunities for collaboration and social learning.

The Army and TRADOC understood the need to develop leaders with the capacity to handle complex problems. It also understood how soldiers' learning preferences, heavily influenced by technology, had out-paced traditional classroom

settings. In the foreword to the book, *Teaching Strategy: Challenge and Response*, Dr. Douglas Lovelace commented on the difficulty of finding classroom balance to meet learner needs and preferences. When he reflected about the Army War College classrooms, he wrote,

> The task [teaching strategies] is even more imperative because the ambiguous conflicts and the complex geopolitical environment of the future are likely to challenge the community of strategists, civilian as well as military, in ways not seen in the past. In this context, developing the appropriate curriculum and effective methods of teaching strategy will be the responsibility of universities, colleges, and institutions of professional military education. (Lovelace, 2010, p. v)

CGSC Mission to Develop Mid-Career Army Officer Leadership

The U.S. Army Command and General Staff College (CGSC) played a vital role in developing the leadership capacity of Army mid-career officers. The CGSC had a specific mission: it "educates and develops leaders for full spectrum joint, interagency and multinational operations; acts as lead agent for the Army's leader development program; and advances the art and science of the profession of arms in support of Army operational requirements" (USACGSC, 2010). The CGSC, as the Army's Leadership Center of Excellence produced graduates who competently and confidently served as leaders, took on tough challenges, and led their teams to solve complex and ambiguous problems.

The CGSC philosophy of education supported the institution's mission to produce pragmatically grounded leaders. These leaders exhibited innovation through critical reasoning that incorporated their experience and professional judgment (CGSC, 2010). Within the CGSS, classroom environments contributed to the institution's mission and vision as the Army's Leadership Center of Excellence and as being a learning community of professional practice. Professionally oriented faculty incorporated student experiences into academic and military content using experiential learning methods based on adult learning principles. The classroom environments provided academic challenges that drew on relevant student experiences. Faculty facilitated connections of learning to application. These connections fostered relevance, as well as higher order and multidisciplinary thinking using technology and global communications. Faculty

assessments ensured students attained the educational end state specified by the CGSC. (CGSC, 2010).

The faculty at the CGSS came from an environment that espoused a can-do attitude. No matter what the challenge, U.S. Army officers gathered within themselves the wherewithal to accomplish the tasks. Military officers also possessed a great deal of personal pride in their accomplishments. They adhered to a common set of Army values instilled in them from the very beginning of their military careers. Upon retirement, military officers brought with them their commitment to accomplish tasks, their pride in their contributions to the organization, and their common value system. These shared experiences created a bond among the retired faculty community at CGSS. Military officers also developed problem solving, decision-making, and briefing (similar to presentation or lecture) skills that allowed them to communicate their analysis and solutions for complicated issues. These skills accompanied the officer into retirement.

As faculty members transitioned from their military careers to educators, many of those interviewed stated they had little or no prior teaching experience. Many of the participants indicated they understood the concepts and principles for planning and conducting training in the military units. Only a few of the participants stated they had experience teaching in military higher education institutions. Lack of teaching experience placed many new faculty members in difficult situations: they had to learn about adult education as they taught in the classroom.

Many faculty members described their early years of teaching in terms of their classroom failures. Several admitted they resorted to Power Point slides and lectured to the students in their seminars. Those faculty members interviewed stated they learned how to create a collaborative, student-centric environment. They described how their capability to facilitate discussion matured. But the faculty described the process as painful. One faculty member said he "still carried the scars" from some of those early encounters.

Not only did faculty describe their lack of initial experience but many of them also said they lacked formal education about adult learning concepts. Faculty recognized the benefit of formal coursework, so they engaged in or completed a post-graduate degree

in adult education. They indicated their formal education had significantly impacted their teaching practices.

The findings indicated that faculty had overused their strengths as briefers to compensate for their shortcomings as adult educators. These overused strengths became barriers within the classroom. For instance, faculty members who had excellent briefing skills and felt comfortable communicating complex problems through Power Point presentations may have seen little difference between briefing military units and teaching students in CGSS. New faculty members tended to transmit information to their seminars and have students recite appropriately analyzed responses in military briefing formats.

Leonard (1991) pointed out the difference between recitation and discussion. The difference involved listening and then engaging with critical thinking questions. Consequently, faculty mistakenly believed they had engaged in discussion when they actually engaged in recitation. Likewise, it appeared that faculty had also missed the opportunity to foster collaborative and student-centric learning environments, at least in their early experiences within the classroom.

As faculty provided their responses to open-ended questions, they frequently admitted early failures in the classroom. However, over time, they acquired discussion facilitation skills that enhanced student learning within the classrooms. Faculty who failed to transition from an instructor to student-centric learning struggled with issues about classroom control, student autonomy, and the process of meaning making. These faculty members articulated their beliefs in terms of authority. One faculty member responded to the open-ended question at the end of the survey instrument "I solicit student input that fills in pieces of the puzzle. Rarely do I ask students to invent the puzzle. I'm the one with the PhD. I am a teacher (and proud of it)—not a 'facilitator'". Not all faculty members responded in this manner. Others indicated they had a growing awareness that their teaching methodology needed to change. They discovered through faculty development, observing other faculty members, their experiences, and their reflections about classroom practices the skills that moved them away from faculty centric to student-centric learning environments.

Most faculty interviewed described deep commitment to teaching: they developed student understanding and created motivating learning environments. Faculty members

who participated in the study reflected back to their early classroom experiences and to how their teaching evolved over time. Many faculty members expressed commitment to the students and built relationships that enabled learning in the classroom. Faculty described their commitment to discussion teaching with enthusiasm. Many of them recognized their importance as facilitators of discussion within the larger framework of the CGSC mission. They understood the effect they had on students who would, one day, become senior leaders within the Army.

Within the context described above, the following discussion provides clarity about the quantitative and qualitative findings that answered the research questions. The next sections contain discussion about the quantitative findings, followed by the qualitative findings.

Quantitative Research Questions

Results of the one-way ANOVA did not show significance for any of the null hypotheses, with the exception of $H0_7$ (Table 4.10), which compared the effect of leadership position on faculty self-efficacy beliefs. The null $H0_7$ indicated significance at the $p < .05$ level, F (6, 154) = 2.213, $p = .045$. Although a post hoc comparison indicated the mean score difference of 12.960 and a standard error of 3.585 between the leadership position sub-categories of team leader ($n = 14$, $M = 132.071$, $SD = 10.956$) and no response ($n = 72$, $M = 119.111$, $SD = 17.679$) was significant at the .018 level, the researcher believed this significance was minimally important to the study due to the small sample size for the sub-category of team leader.

Qualitative Research Question

The qualitative research question was, "How do faculty perceive themselves as facilitators of discussion in the classroom?" Several themes emerged from the faculty responses, including classroom environment, discussion teaching, questioning, preparation, and deployment experiences. These themes presented opportunities whereby CGSC could increase its capacity to accomplish its mission of being the Army's Leadership Center of Excellence.

Theme One–The Classroom Environment

The Training and Doctrine Command (TRADOC, 2011) Pamphlet 525-8-2 stated, "In the classroom, the Army must move from individual-based and instructor-delivered learning to team-based, facilitated learning" (p. 12). TRADOC described the learner-centric 2015 learning environment as a context-based, collaborative, and problem-centered classroom. TRADOC stated,

> Classroom learning will shift from instructor-centered, lecture-based methods to a learner-centered, experiential methodology. Engaging the learners in collaborative practical and problem solving exercises that are relevant to their work environment provides an opportunity to develop critical 21st century Soldier competencies, such as initiative, critical thinking, teamwork, and accountability, along with learning content. (2011, p. 19)

Faculty understood these connections and the importance of the classroom environment that influenced learning. They felt they created environments that supported the students and allowed the seminar to achieve higher levels of cognitive development. However, faculty vocalized their displeasure with the imposed environment. The imposed environment, according to Bandura (1997) comprised the physical and social structures that impacted people whether they wanted it to or not. Within educational institutions, the imposed environment affected faculty both positively and negatively.

Faculty felt that the CGSC imposed environment contained numerous barriers that inhibited collaborative learning. Interviewed faculty said that constantly changing class schedules, unannounced guest lecturers, and inadequate lesson plans adversely affected faculty efforts to create motivating classrooms, limited time for faculty or student preparation, and reduced discussion among students. According to those interviewed, CGSC became less believable about its commitment to developing student-centric learning environments, as previously described in this chapter. The collaborative atmosphere suffered when the class schedule changed frequently. Interviewed faculty felt less valued when they had to sort out the restricted number of class hours and had no guidance about how to accomplish the learning objectives. Two faculty members specifically talked about teaching the increasingly content-oriented lesson plans in less time.

Moreover, some teaching departments further exacerbated the problem. One faculty member who responded to the open-ended question on the survey said,

> I can facilitate discussion, but we, as instructors, have been told in no uncertain terms that we can't change deliverables, change the schedule, extend a paper by one day, etc. It's hard to match up individual instruction capability with a lock-step teaching model, rigid schedule, and way too many distractions.

Faculty stated that lesson plans had too much content, relied on Power Point, and contained too much pre-reading material. Some faculty described discussion in terms of filler material. Lesson authors inserted discussion and failed to consider how faculty effectively engaged students, given the amount of time set aside in the lesson. The changed schedule and poorly constructed lesson plans meant that faculty increased their preparation time.

Faculty interviewed also noted that CGSC had responsibility for providing opportunities that strengthened discussion facilitation skills. Their comments aligned with what TRADOC and CGSC stated about empowered faculty. However, they also mentioned the institution needed to model good discussion sessions so they could see "what right looked like." Faculty who participated in the interviews commented about the lack of feedback from peers, teaching teams, departments, and CGSS. They claimed that feedback could help them to improve their classroom practices. Regarding student feedback, a few faculty mentioned they perceived the institution used student feedback for punitive purposes.

Interviewed faculty alluded to hegemonic tendencies among the faculty and students in that both willingly accepted teaching or learning behaviors that were harmful and reinforced the interest of those who had power. Brookfield (2005) described the subtlety of hegemony as "A system of practices, behaviors, and actions that people learn to live out on a daily basis within personal relationships, institutions, work, and community" (p. 94). Sometimes those in power consisted of other students or faculty. Signs of possible hegemony at work in the classroom included unchallenged sexist language, silenced voices, cultural insensitivity, or devalued personal relationships. Faculty felt that the institution-imposed environment contributed to the hegemony in the classroom.

On the positive side, faculty commented that critical thinking and reflection provided opportunities for faculty and students to challenge their assumptions. Some faculty interviewed admitted they changed their minds when students convincingly argued their points. Students who challenged their peers, especially when discussing ethical issues, also reduced hegemony in the classroom. They held one another accountable when either faculty or students breached the rules or expectations governing the created classroom environment.

Toxic classroom environments occurred when aggressive students and control-minded faculty members contributed to tense classroom situations. Students with sour attitudes, faculty who did not relinquish control, unclear expectations, and capriciously enforced rules created conflict within the classroom. Such conflicts affected learning. Faculty who exerted influence through shared understanding of expectations, built relationships with students, and encouraged collaboration helped reduce tensions in the classroom. They lessened conflict and developed trust so students willingly shared their points of view, challenged assumptions, and made meaning from their experiences.

Faculty understood the importance of establishing the ground rules for discussion early in the course. They also understood the need to clarify expectations and recognized that students had a role in developing both rules and expectations. Faculty members built relationships to bridge the potential problems and to establish conditions for civil discourse. One faculty member described how he specifically built alliances among the students. Discussion involved emotions, and alliances with students helped to vent the possible conflict before the atmosphere deteriorated.

Faculty valued their commitment to building environments that supported discussion. Many faculty interviewed talked about energized, democratic classrooms that valued multiple viewpoints. When students exchanged viewpoints and challenged their assumptions, faculty achieved learning objectives. Without a democratic classroom that was free of hegemony and conflict, faculty agreed that students had difficulty reaching higher levels of cognitive development.

Theme Two–Discussion Teaching

Two primary thoughts emerged on the subject of discussion teaching. The first involved discussion as a teaching method and the second included the role of faculty in

discussion teaching. Most faculty interviewed agreed that discussion teaching was essential for achieving the leader development goals of the Army, the learning objectives of CGSC, and the development of student capacity for dealing with ambiguity. The *U.S. Army Learning Concept for 2015* (TRADOC, 2011) stated, "Years of research show there is still no single learning strategy that provides the most effective solution to every learning problem" (p. 14). Yet, discussion teaching, when combined with pragmatic application, provided the greatest benefit to the in the CGSS seminars.

Faculty comments supported the TRADOC statement. Although they agreed about the need for democratic classrooms to support discussion teaching, they struggled with their skills regarding facilitation, guiding discussion, and balancing student curiosity. Faculty described the challenges they faced as they taught students how to discuss topics and engage in critical thinking, or as they guided students to think about application of learned principles to future assignments. Some faculty talked about how they helped students create new ways of thinking and how they encouraged students to develop solutions for ambiguous problems.

Faculty described techniques that allowed them to insert discussion throughout the experiential learning model (ELM), especially during the stage titled "generate new information." However, many faculty interviewed described how poorly written and content-heavy lesson plans stifled critical thinking and lessened student cognitive engagement. Many faculty members took apart the lesson plans and rewrote them. Almost all the faculty found they had to rethink the flow of lesson material: they envisioned where the lesson should go, the possible routes it would take to get there, and the how the critical thinking question would guide discussion.

Faculty indicated they needed to teach students to be critical thinkers. They had to show students how to take apart their assumptions and viewpoints. The *U.S. Army Learning Concept 2015* discussed critical thinking in these terms: "The Army's learning model can facilitate a lifelong learning culture by encouraging critical thinking, [and] complex problem solving" (TRADOC, 2011, p. 14). They had to teach students to repackage what they learned so it made sense. Students bought into the topic when they realized buy-in. In other words, the students recognized topic relevance for their entire

lives. The entire process, according faculty, led students to higher levels of understanding.

During the learning process, faculty talked about how they balanced guiding students and becoming part of the learning group. Faculty became co-constructors of knowledge and contributors to understanding whereby students made meaning and related the outcomes to their everyday lives. But faculty also noted they had to learn when to step back into the conversation as facilitators because discussion went astray. Again, the *U.S. Army Learning Concept 2015* (TRADOC, 2011, p. 14) addressed faculty as facilitators in this way,

> Moving from an instructor-centric to learner-centric model has profound implications for how the Army selects, trains, and manages instructors. Instructors will become facilitators who ask probing questions as the "guide on the side" in a learner-centric model, rather than dominate the class as the "sage on the stage." It is a more demanding role that should be considered a career-enhancing position.

When discussion went off course, faculty needed to step in and reorient students so they could achieve the learning objectives. Many faculty members struggled with balancing the guiding aspect of facilitation and the control aspect of redirecting discussion. Several said that this balance was an art form; it was something they learned over time.

Throughout the process of knowledge construction, faculty provided sources of self-efficacy through guided mastery experiences (application of what students learned), vicarious experiences (role modeling), and verbal persuasions (verbal feedback) (Bandura, 1997, p. 79). Faculty created learning environments that influenced how students felt about their performance. Bandura called student emotions an affective source of self-efficacy (see Figs. 2.3 and 2.4). *The U. S. Army Learning Concept for 2015* (TRADOC, 2011, p. 14) addressed self-efficacy in the classroom and provided support for the use of the sources of self-efficacy to strengthen student learning behaviors,

> Learner characteristics that influence transfer [of learning from the classroom to the operational environment] include cognitive ability, self-efficacy, and motivation. Some of these learner characteristics are malleable and enhanced through specific learning strategies such as mastery experiences and supportive feedback.

Good discussion, according to several faculty members, required rules and expectations. The rules for discussion enabled faculty to maintain a motivating (Wlodkowski, 2008) and democratic classroom (Brookfield & Preskill, 2005). Likewise, common understanding about what faculty and students expected of each other eliminated ambiguity about responsibility and accountability. Because the collaborative classroom required an alliance between the faculty member and the students, all involved needed to understand their responsibilities for class preparation, participation in discussion, contributions to a democratic and motivating environment, and valuing diverse points of view. Shared understanding allowed both faculty and students to prepare for discussion so that knowledge construction would move students to a higher level of learning, make new meaning, gain relevance, and ultimately meet the learning objectives for the class.

Faculty recognized that early in the course, students lacked discussion, critical thinking, and critical listening skills. The students needed to learn how to engage one another in civil discourse, challenge their assumptions, and create new meaning out of their experiences. This process required hard work on the part of the faculty. Students increased self-efficacy as they practiced these skills and improved their thinking. Bandura (1997) was adamant that self-efficacy was not a global construct. He stated that self-efficacy focused on specific tasks, changed when task difficulty increased or decreased, depended on the context, and changed across different domains of functioning. So, in relation to student acquisition of discussion skills, self-efficacy did not remain stable if any of the previous factors changed. The *U.S. Army Learning Concept for 2015* also talked about the need for students to learn these skills. "Soldiers must become expert, self-motivated learners who are capable of asking good questions and possess digital literacy skills that enable them to find, evaluate, and employ online knowledge, whether in learning or online environments" (TRADOC, 2011, p. 14).

Facilitating discussion included a large number of smaller tasks. Faculty described preparation in terms of the physical layout of the classroom, integrating technology, reading materials, lesson plans, student learning styles, experiences, and personalities. Faculty considered their own facilitation skills. They thought about their preparation, depth of knowledge, and the learning objectives. The first aspect was the

timing of preparation. Some faculty indicated their learning style was such that they needed very little time to prepare. Others indicated they began preparation weeks in advance. The end state was that the faculty members felt they owned the lesson plan. One faculty member stated succinctly his depth of ownership, "I live it, breathe it, eat it, and sleep it." Some faculty described, in compelling terms, how they established guidelines for classroom conduct, communicated expectations, and created partnerships with the students.

Other faculty, who were less direct about what they expected from the students, found themselves resorting to transmission of information when discussion did not work out. These faculty members admitted they had failed their students by not establishing expectations and, when their attempts at discussion failed, they defaulted to Power Point presentations. Bain (2004) identified some key ideas about preparation for class that came from his study about the habits of the best college faculty. These ideas included (a) thoughts about the big issues that students need to consider, (b) what kinds of learning abilities will they need to grapple with the issues, (c) what kinds of mental models the students had and how the faculty could challenge them, and finally, (d) how the faculty member should integrate conflicting issues into the curriculum and then deal with the process of coming to grips with the complexity.

Numerous faculty members described their behaviors when balancing their expertise (content) with the capacity to facilitate (process) discussion. One faculty member described that he became uncomfortable when he gave students autonomy in the classroom, but he felt much more comfortable when he had control of the classroom. The researcher found that faculty members had wide-ranging beliefs about their capability to engage in behaviors associated with the subject matter they were teaching, the amount of preparation for that topic, and what they understood about the student experiences that came up during discussion. As discussed previously, Bandura (1997) wrote that self-efficacy beliefs changed, depending on the level of task difficulty, the generality of the task, and the strength of prior experiences associated with the task. What Bandura said about self-efficacy beliefs appeared evident in faculty anecdotal descriptions about preparing for discussion on subjects with varying levels of difficulty,

the breadth of the topic across multiple disciplines within the CGSC, and the faculty member's experience with having taught the topic in other seminars.

Interviewed faculty talked about meeting student needs. They understood the key to effectively engaging in discussion teaching involved getting to know the students. Some faculty enthusiastically described how they built relationships within the classroom to create a democratic, collaborative learning environment. Such relationships formed the foundation for partnerships that constructed knowledge and engaged in meaning making. However, some of the interviewed faculty struggled with authority and control, even when it came to building relationships.

Many faculty members talked about their behaviors for preparing themselves, the students, and the environment for discussion. These preparatory behaviors involved their facilitation skills, understanding the needs of the students, how and when to relinquish control in the classroom, the expectations of students for pre-reading, and preparation of critical thinking questions. Faculty reflected on how they formed a student-centric, collaborative, motivational learning environment. Faculty selected specific preparatory behaviors that depended on their self-efficacy beliefs (Fig. 2.4). Prior behaviors influenced the self-efficacy beliefs, as did the success or failure of prior preparation activities. Verbal feedback from students or the assessment of peer instructors may contribute to the faculty member's increased (or decreased) self-efficacy for preparing themselves and the students for discussion.

Theme Four–Questioning

Faculty descriptions about their experiences with developing and using critical thinking questions to guide discussion fell into four categories. First, faculty gained experience in the art of questioning through practice and reflection. Questioning involved asking a critical thinking question, patiently listening to what students had to say, and then responding. Faculty indicated their skills in developing good critical thinking questions and effectively using those questions to generate and sustain discussion evolved over time. Second, developing critical thinking questions was hard work, made even more difficult by the quality of the lesson plans.

Third, students had to learn the art of asking critical thinking questions. Faculty realized they needed to role model the use of critical thinking questions and then

encourage their students to practice their questioning skills. Faculty helped students master the art of asking critical thinking questions. Good questioning skills helped achieve higher levels of learning and make meaning out of classroom experiences. Fourth, Christensen (1991a) asserted questioning involved listening and responding. Many faculty interviewed for this study stressed the importance of listening. They believed listening was essential if they wanted to guide students with critical thinking questions.

The *U. S. Army Learning Concept for 2015* (TRADOC, 2011) discussed the competencies for the 21st century soldier. Soldiers needed to have critical thinking and problem solving skills because

> They solve complex problems by using experiences, training, education, critical questioning, convergent, critical, and creative thinking, and collaboration to develop solutions. Throughout their careers, Soldiers and leaders continue to analyze information and hone thinking skills while handling problems of increasing complexity (p. 60).

Faculty understood that carefully constructed, well timed, and open-ended questions challenged student assumptions. However, mastering the art of asking critical thinking questions proved difficult for some faculty. Some faculty shared questioning experiences encompassing an energetic dance of thought throughout the classroom. A few of those interviewed told of their experiences about using repetitive closed-ended questions that resulted in student recitation of correct responses. In any case, faculty admitted they had to work hard to develop good questions.

Bandura (1997) described how self-efficacy beliefs resulted in behavior choices reflecting the amount of effort an individual chose to expend, whether they persisted when faced with difficulty, and their estimated capability to complete the task. Given Bandura's model (Fig. 2.3), faculty self-efficacy affected how they developed questions and used those questions in classroom discussions. For example, faculty who expended low effort to develop questions probably encountered problems with discussion. Such faculty had less inclination to develop and use critical thinking questions in future classes. On the other hand, faculty with higher levels of self-efficacy probably created critical thinking questions that stimulated discussions. Faculty who experienced success generated future success through their selection of behaviors. Typically, faculty who had

high self-efficacy probably had greater persistence when they encountered failure. In other words, their self-efficacy pushed them to reflect and try again.

Regarding questioning, faculty interviewed for this study described that difficult subject matter hampered their ability to create facilitation questions. Jeanette spoke about her experience teaching difficult material for which she had not prepared questions. After she skimmed the surface and asked a few superficial questions, Jeanette resorted to the Power Point presentation and walked away from the class dejected. Other faculty provided similar examples. However, several faculty described successes that motivated them. Chris, for example, described how he provided guidance to the students and then let them develop their questions and the flow of discussion. Ron discovered that students had better questions than he did and they challenged assumptions.

Other faculty members who participated in the interviews said they relished the intellectual engagement in the classroom and used their sets of prepared questions as jumping off points. They often described they did not always know the direction of the discussion but they kept track of the major points to ensure the students attained the learning objectives. In the latter case, it seemed that faculty had higher self-efficacy beliefs, in that they enjoyed the opportunity to explore topics and discover new ways of seeing things. In other words, they become partners with the students in creating knowledge about tough subjects by using critical thinking questions.

Many faculty members noted that students came to the seminar ill prepared for critical thinking questions. Therefore, faculty planned ways to engage the students and helped students develop their critical thinking and questioning. Sometimes, faculty staged questions among the students and expected them to do research and facilitate discussion. These faculty members seemed to have high self-efficacy beliefs in that they entrusted students with peer-to-peer facilitation. Faculty admitted students sometimes let them down. But, they added that when students failed, those failures provided opportunities to increase student (and faculty) self-awareness, responsibility, accountability, and self-efficacy.

Several faculty members noted the art of questioning entailed silence. One faculty member said he consciously managed the silence. Managed silence meant the faculty practiced patience, allowed reflection in the seminar, and prompted students with

appropriately timed follow-up questions. Silence, he said, was the opportunity that students had to process information and make connections. In order to manage the silence, faculty had to understand individual student learning styles and personality traits. They had to have understanding about classroom dynamics. They also gauged the difficulty of the material. Almost all faculty agreed that managed silence was hard work. They reasoned that if faculty jumped in too soon to save the discussion or if they became uncomfortable with silence and moved on, they robbed students of the chance to make meaning, and they negatively influenced student movement toward deeper levels of cognitive development.

Faculty and Student Deployment Experiences

Finally, faculty interviewed for this study provided their thoughts about the usefulness of deployment experiences in the classroom. Faculty did not agree about this topic. Some faculty members felt that recent faculty combat or deployment experiences allowed them to retain credibility in the classroom. Other faculty members felt the institution overvalued the usefulness of faculty deployments. The institution's emphasis on faculty deployment overseas (referred to within the military as "regreening" for Army assignments) edged out other important teaching and facilitating skills. In other words, the imposed environment created inverted priorities, according to faculty members, and diminished opportunities that could have focused on facilitation skills.

Some faculty members felt shared combat experiences, whether from faculty or students, presented powerful openings that engaged students in meaning making and critical thinking. The experiences helped students forge connections with the material and allowed them to discover relevance that might not have occurred otherwise. Faculty members who took part in the interviews indicated that, as they gained appreciation for shared experiences, they discarded their inhibitions and opened up their lives; they practiced transparency.

The *U.S. Army Learning Concept for 2015* (TRADOC, 2011) clearly pointed out the central role of student experiences in learning. Experiences became the bedrock for learning through a collaborative environment involving both the students and facilitators. "Students and facilitators construct knowledge by sharing prior knowledge and experiences and by examining what works and what does not work" (p. 19). Farther on

in the chapter, “Soldiers at the edge of operational adaptation are in an ideal position together and transmit operational experiences and lessons” (p. 22).

The faculty described how they incorporated shared experiences into discussion. All interviewed faculty recognized the importance of shared experience but also mentioned the array of risks they encountered. For instance, some faculty expressed concern about the strong emotions connected to student combat or deployment experiences. Some students believed their experiences were universal laws. When faculty or student peers challenged student belief systems and assumptions, heated arguments ensued. These types of encounters disrupted the classroom environment, but also posed new learning opportunities as the seminar, as well as and individual students, struggled to make meaning out of what happened.

In addition to the emotional aspects associated with shared experiences, faculty described potential alienation of some students. Some students had not deployed; others, such as international officers, had different views about the Army’s involvement overseas. Faculty who participated in the interviews described how the intensity of the classroom environment increased when they or students shared combat experiences. Faculty ensured that students without deployment experiences or those with different viewpoints had a seat at the table. The faculty needed to include these individuals in the discussion and reassured them that their viewpoints were valued as the seminar constructed knowledge. Faculty expressed different levels of comfort regarding shared combat experiences. Perhaps their behaviors indicated some faculty members possessed lower self-efficacy beliefs about their ability to facilitate emotionally charged discussion.

The preceding section discussed the quantitative findings and the qualitative themes. The next section provides the implications for practice.

Implications for Practice

This study yielded important insights about faculty self-efficacy beliefs at the U.S. Army Command and General Staff College. The quantitative findings highlighted areas that were not significant, but the qualitative interviews provided a holistic picture into how a specific group of faculty members, those who participated in the interview process, perceived their capability to facilitate discussion in their classrooms. The

findings in this study were consistent with those of other studies (Bobbett, 2000; Dellinger, 2001; Olivier, 2000; Tschannen-Moran et al., 2001). This study also showed the value of mixed-method research design wherein the qualitative findings provided a holistic view of faculty self-efficacy, whereas quantitative findings would have provided few or no insights.

The findings in this study provided numerous opportunities for the CGSC to further develop its influence as the Army's Leadership Center of Excellence. Many positive aspects about the College came out in the study. Most faculty saw themselves as vitally important members of the institution in that they attributed CGSC to developing competent and confident leaders. All faculty interviewed worked hard to create learner centric classrooms reflecting the characteristics described in CGSC guiding principles and the *U.S. Army Learning Concept for 2015*. Many of the faculty used discussion as their preferred teaching methodology and, when they lectured, several of them felt they missed opportunities to help students achieve higher cognitive development. All faculty saw themselves as facilitators, as "guides to the side" rather than the "sage on the stage." Finally, they cared deeply about the learning that took place in the seminars, their relationships with the students, and how they challenged assumptions through critical thinking and reflection on their experiences.

However, faculty also identified several hurdles that inhibited them from achieving the CGSC mission. The study indicated the following implications for practice within CGSC that included the environment, discussion teaching, curriculum development, faculty development, and student experiences.

Environment

Almost all faculty identified three areas of concern about the institutional environment: the class schedule, allocation of teaching time, and policies affecting faculty flexibility. Most faculty said that CGSC could do more to promote a healthy institutional environment that affected not only the faculty, but students and their families. How faculty and students viewed the CGSC environment influenced their perceptions and behaviors in areas such as use of the adult learning methods, discussion teaching, critical thinking, question development, and facilitation of discussion.

Additionally, frequent disruptions of the class schedule had adverse effects on building seminar teams and engendering a collaborative learning environment. The *U.S. Army Learning Concept for 2015* addressed the competency of teamwork and collaboration that not only applied to Army units in the field, but to the CGSS classroom environments as well. The document stated,

> Soldiers and leaders create high-performing formal and informal groups by leading, motivating, and influencing individuals and partners to work toward common goals effectively. They are effective team members, understand team dynamics, and take appropriate action to foster trust, cohesion, communication, cooperation, effectiveness, and dependability within the team. Leaders build teams, seek multiple perspectives, alternative viewpoints, and manage team conflict. (TRADOC, 2011, p. 42)

Class schedule changes that occurred weekly and sometimes daily negatively affected the classroom environment. The frequent changes disrupted the flow of the courses and lessons, increased faculty and student workloads, lengthened the class day, and interrupted family plans. The schedule changes resulted in student and faculty frustration that impacted the climate, teamwork, and collaboration within the classroom. The issue of class schedule changes adversely affected the CGSC as a learning organization "committed to a continuous effort to improve student learning, teaching, and the learning environment" (CGSC, 2010).

Several faculty identified problems with the allocation of class hours among the departments. Some departments had ample hours, some of which went unused, while other departments had much less time. Unbalanced class hour allocation restricted faculty ability to engage students in discussion and prevented faculty from using the experiential learning model. Faculty who faced truncated class hours had to make difficult decisions about the course material. Several faculty complied with their teaching department requirements to cover all material in the lesson plan: they simply lectured to the students.

Some CGSS and departmental policies conflicted with the stated CGSC philosophy and guiding principles. One faculty member described his department's policy that faculty could not deviate from the lesson plans. Strict policies hampered faculty flexibility to meet the needs of the students, develop critical thinking, and create a collaborative student-centric learning environment. Restrictive department policies

disempowered faculty who sensed they no longer had "flexibility to determine how best to achieve program learning objectives in their classrooms" (USACGSC, 2010).

According to Bandura (1997), people, to include faculty, possessed agentic capacity meaning and they had choices about how they created their environments and the types of behavior they engaged in within those environments. Bandura also discussed that individuals with high self-efficacy took advantage of the opportunities in their environment. Those with lower self-efficacy entangled themselves in the negative aspects of the environment. Bandura's description of the effects of the environment on individual self-efficacy holds implications for the faculty at CGSC. Some faculty took advantage of the environment and employed their facilitation skills to overcome obstacles, allowing them to engage their seminars with positive behaviors. Other faculty did not always fare so well. They became entangled in the policies, restrictions, class schedules, and class hour allocation issues to the detriment of their seminars.

Discussion Teaching

Many faculty described the problems they faced as they incorporated discussion teaching into their seminars. Time allocation, poorly constructed lesson plans, emphasis on content, and lack of critical thinking questions adversely affected how they engaged in discussion teaching within the seminars. Some faculty felt that CGSC promoted discussion teaching as the ideal, but did not follow through with actions supporting that ideal. Consequently, faculty sensed they were left on their own. The perceived lack of institutional support placed faculty in a precarious situation. Lack of support for discussion teaching prompted faculty behaviors that affected development of leadership competencies. The implication highlighted a sense of faculty alienation from the institution, which created conflict with the Army values inherent in the faculty culture.

Faculty felt it became increasingly difficult to meet various external demands to foster the student-centric, collaborative, discussion-based learning environments envisioned in the *U.S. Army Learning Concept for 2015* (TRADOC, 2011) and the CGSC philosophy and guiding principles. Some faculty who expressed high self-efficacy about their discussion facilitation skills eagerly adapted to the environment, found ways around the problems, and took risks. Other faculty members became enmeshed in the

contradictory institutional expectations and resorted to lectures and Power Point slides when they felt they could not meet the competing demands within CGSC.

Preparation of Lesson Plans

Several faculty described their frustration about the curriculum, specifically the lesson plans. They highlighted concerns that lesson plans did not support student-centric classrooms. The lesson plans had too much pre-reading material, were content-heavy, and lacked good critical thinking questions. Many lesson plans did not appropriately allocate time for various elements within the lesson or simply included discussion as a filler. Some lesson plans appeared to adopt the experiential learning model but were, in effect, lectures supported by dozens of Power Point slides. Most faculty felt CGSC and their departments could improve quality control in the lesson plans.

Several faculty pointed out the uneven lesson plan quality led to lessons that were content-heavy, lacked critical thinking questions, or superficially acknowledged discussion teaching. Faculty felt they were responsible for re-engineering the lesson plan, envision the flow of material, and salvage the key points so they could lead discussions. Consequently, they developed the critical thinking questions to generate discussion and deleted reading requirements. The implication for CGSC is that faculty may have missed the essential elements in the lesson plan when they attempted to adapt content-based material to a discussion-based format.

Instead of rewriting lesson plans, faculty ought to be able to spend time thinking about how to develop leaders within the CGSC classrooms, especially in regards to the leader skills that support competencies. Such skills become the basis of lifelong learning habits. The *U.S. Army Learning Concept for 2015* (TRADOC 2011) described how skills such as discussion and critical thinking are essential so that soldiers can deal with complexity and ambiguity in future assignments.

Questioning and Critical Thinking

Critical thinking habits are reinforced throughout the U.S. Army doctrine and leader development guidance. The CGSC echoes a phrase found in many of the documents that they teach students how to think, not what to think. Unfortunately, faculty identified critical thinking questions as a shortfall with some of the CGSC lesson

material. The first implication for CGSC is that the pace of change in the operational environment, the huge shifts in Army doctrine, and the vast array of techniques used by soldiers to overcome obstacles in their operating environments require the use of critical thinking skills.

The CGSC ideal included critical thinking as a part of the classroom lesson plans. In reality, faculty identified lesson plans as content-heavy, instructor-based, and knowledge-focused. Faculty members had to bridge the gap between poorly constructed lesson plans and the CGSC ideal. The implication for CGSC is that faculty expended considerable time resources to rewrite lesson plans incorporating critical thinking questions. Even when faculty modified lesson plans, they faced class time constraints exacerbated by constantly changing schedules. These factors resulted in some faculty simply lecturing to cover content, thus depriving students of opportunities to enhance their leader development. When these situations happened frequently throughout the academic year, CGSC may have graduated students who had less opportunity for development.

Faculty and Student Deployment or Combat Experiences

The issue that resulted in the greatest disagreement was that of faculty deployment experiences. As already stated in the findings, faculty voiced equally divided opinions about the benefits of their deploying overseas or getting "re-greened." Some faculty felt that CGSC overemphasized faculty deployment experience at the expense of facilitation skills. They argued that deployments did nothing more than take faculty out of the classroom and provided very little benefit to CGSC. Faculty deployment constituted a leftover mindset from active duty.

Other faculty argued that their deployment experience provided insight into the student experiences. They felt a sense of kindred spirit for the sacrifices soldiers made during their military service. Both parties made strong arguments and the implication for CGSC is awareness of the faculty perceptions about their deployment experiences.

The implications for CGSC emerging from faculty descriptions of deployment involved the undercurrent of faculty facilitation skills development. Many of the faculty expressed their desire to improve facilitation skills. Included in their comments was the

need for more feedback from peers, team leaders, departments, and CGSC. Several wanted those who were experts to model facilitation of discussion so they knew "what right looked like." Still others desired to hone their facilitation skills through training sessions with experts.

The previous section described the implications of the findings for CGSC. The next section discusses recommendations.

Recommendations

Based on the results of the study, this section provides recommendations for the CGSC. These recommendations include institutional or teaching department changes related to the classroom environment, faculty development, curriculum development, preparation efforts for class by the faculty and students, and novice faculty introduction to discussion teaching methodology. The CGSC and departments should consider the following:

1. Reduce interruptions or changes to the published teaching schedule. CGSC policies regarding changes to the teaching schedule should be reviewed and reinforced by the institutional leadership.
2. Review institutional or department policies that affect faculty ability to adjust the lesson plans within their classrooms. Providing faculty with the latitude to adjust their lesson plan will allow them to better manage their classroom environment.
3. Include within the faculty development program (FDP) phase one a segment about developing collaborative, student-centric classroom environments that support discussion-teaching methodology.
4. Include a module in the faculty development program about techniques for faculty preparation to facilitate lessons. This is different from the FDP phase 2 series of the various departments. This recommendation focuses on giving faculty a set of tools or skills whereby they can tailor lesson plans quickly and effectively to meet the needs of their seminar, yet achieve the course learning objectives.

5. Curriculum developers and lesson authors need to perform surgery on their lesson plans and choose the material that provides the greatest benefit to the student. This is easy to say but not so easy to do, given the outside requirements from Department of Defense, the U.S. Army, and in some cases, Congress. However, CGSC and teaching departments should consider a closer look at the content to include reading materials and refocus material to develop 21st century leader competencies that instill lifelong learning habits. The review should consider changes to the amount and relevancy of reading materials, inclusion of critical thinking questions, allocation of time for components of the experiential learning model, and integration of discussion teaching methods.
6. Revitalize the existing CGSC faculty observation and feedback process, with an emphasis at the team and department levels.
7. Revisit the concept of having novice or less experienced faculty work with experienced faculty members to create a collaborative, student-centric classroom environment.

Recommendations for Future Research

This section provides recommendations for future research. Based on the results of the study, future research could involve the following categories: research by type of institution, within and across disciplines or fields of study, faculty member demographics, and longitudinal studies. Bandura (1997) clearly stated that self-efficacy is not a global measure. Faculty may experience differing levels of self-efficacy beliefs based on changes to context, task difficulty, and feedback from previous experiences. Research that considers these factors will be important for a better understanding of faculty self-efficacy beliefs.

Types of Institutions

Future research at different military academies and training organizations may highlight ways in which the Army can better prepare faculty members for teaching or training responsibilities. Factors that may be of concern to faculty at a military academy may be of less importance for instructors at enlisted basic training sites or junior officers

teaching at the captain career courses. Understanding what faculty and instructors at these institutions believe about their capability to teach within these organizations may provide insight in how the Army develops faculty and instructors.

Future researchers should consider research in the faculty or instructor self-efficacy beliefs at U.S. Army Reserve and U.S. Army National Guard training locations. Faculty and instructors for these components may face different challenges that affect their beliefs about their capability to teach or train soldiers.

Non-military institutions also play a role in the education or training of the soldier. Many civilian institutions provide education or training on a contractual basis for the U.S. Army. Research about faculty self-efficacy beliefs at large public and private universities and colleges, two-year or community colleges, and other institutions may yield insights into how the Army can best prepare faculty and instructors for teaching or training the various components of the U.S. Army.

Within or Across Disciplines or Fields of Study

Studies in this category would be most appropriate at military academies or similar types of institutions (e.g., West Point). Administrators may benefit from understanding how faculty self-efficacy beliefs compare within various disciplines or fields of study. These types of studies may highlight areas that need additional faculty development opportunities. Likewise, studies that consider faculty self-efficacy across disciplines may provide information that can assist in determining best practices to empower faculty to sustain or improve their teaching.

Faculty Groups

As mentioned in Chapter 2, the Title X faculty at CGSC are closely related to non-tenured, full time faculty. Some military education institutions have the equivalent of tenured faculty, and, as already mentioned, some adjunct and contractual faculty teach in a wide variety of venues, to include distance education. Studies that investigate faculty self-efficacy beliefs for these groups may provide insight into faculty preparation and development programs.

This study did not completely address how female faculty members or Faculty of Color perceived their capability to teach in various classroom environments. Research

into the demographic faculty subgroups would be appropriate. Faculty who teach in the CGSC scholars program, sit on thesis committees, serve as thesis advisors, or teach in adjunct capacities at other institutions may have a unique perspective about their discussion facilitation skills. The present study missed these viewpoints.

Longitudinal Studies

Longitudinal studies surveying faculty members at different points in their career would be useful for determining how self-efficacy beliefs might change over time. As faculty gain experience in the classroom, they may also gain greater competency in teaching their curriculum or subject matter. These kinds of factors could increase self-efficacy, especially if faculty viewed their progress in positive terms.

Faculty development offices at the U.S. Army academy or education institutions or at training facilities may benefit from studies considering how to incorporate sources of self-efficacy within faculty development programs. Researchers could consider how curriculum developers integrate sources of self-efficacy within academic or training materials. Training or faculty development could intentionally influence increases in individual self-efficacy beliefs. Finally, the U.S. Army is cosmopolitan in nature. Not all cultures approach education or training in the same way. Consequently, studies that consider the cultural effects on faculty self-efficacy could help the U.S. Army consider ways to strengthen faculty development programs that address cultural differences.

Student and Collective Self-Efficacy Studies

The faculty behaviors in the classroom might have affected student beliefs about their capability to learn. Future studies could address what students thought about faculty classroom practices. Finally, future studies could consider collective self-efficacy beliefs. In this case, collective means the self-efficacy of a CGSC teaching team, distinct from that of an individual faculty team member. At another level, researchers could compare teaching team collective self-efficacy across the academic departments. As mentioned earlier, self-efficacy studies should include CGSC satellite campuses. Regarding collective self-efficacy beliefs, future studies could compare the self-efficacy of teaching teams at satellite campuses to that of teaching teams at Fort Leavenworth.

Reflections

In closing, this study was narrowly focused on the faculty experiences at the U.S. Army Command and General Staff College. It raised many questions that provided opportunities for future researchers. Such research could take place within the CGSC itself, in other military higher education or training institutions, or in civilian universities and colleges. It did not, as was originally intended, provide greater understanding about female faculty self-efficacy beliefs. It also did not provide as much detail about how Faculty of Color perceived their self-efficacy when facilitating discussion. A larger population and higher response rate for the quantitative survey might have yielded opportunities to explore significant findings. Likewise, the lack of participants from satellite campuses was disappointing; the qualitative portion of the study missed an opportunity to hear their voices.

The researcher felt that the qualitative data analysis never truly ended. Even with multiple views about the findings, frequent conversations with independent experts, and reflections about the emerging themes, a hunger remained for more information. What voices were not heard? What clues were overlooked or missed that could have provided more clarity about faculty descriptions of their experiences in the classroom? Given the small, purposefully selected interview sample, what perspectives were missing?

In the end, the mixed methods study heightened the researcher's personal self-efficacy beliefs in a number of areas. These included sharpened research skills, greater understanding about designing studies, developing and administering survey instruments and interview protocols, handling quantitative analysis, use of statistical and qualitative analysis packages, and clarifying understanding through reflection. The study allowed the researcher to develop lifelong professional relationships within a learning community of adult and continuing education scholars. Most of all, the study provided the researcher with an opportunity to return a research gift to the field of adult education. This study is a mere piece in the puzzle that contributes to the profession of higher education and educational leadership.

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Appendix A - Application to Conduct Research at the CGSC

E-mail notification for survey response
Survey Title: Survey Application
Respondent Unique Key: INQ-20080825122148-793503233
Response Date: Mon, Aug 25, 2008 13:12:44

Have you reviewed CGSC Bulletin 40 "Survey Research? Yes.
After reviewing CGSC Bulletin 40, are you satisfied that your research project complies with the bulletin? Yes.
Survey Requester: Mr. Barry B. Leslie
Project title: Self-Efficacy Beliefs of Faculty at CGSC
E-mail address: xxx
Phone number: xxx
Survey Title: Faculty Self-Efficacy Beliefs
I will be the sole investigator for this survey. Yes
Start Date: 1 October 2008
End Date: 30 June 2009

What is the purpose of the survey? The survey will collect data about CGSC faculty self-efficacy beliefs. This data will be used for a dissertation study about the effects of faculty self-efficacy beliefs in the CGSC classroom. Additionally, the dissertation will consider the implications for faculty development programs and the decisions that CGSC leadership make regarding the faculty development program resource allocation and how those programs can help foster positive self-efficacy.

What survey research technique(s) will you be using: Survey/Questionnaire and Semi-structured interview.

How will the survey be administered? World Wide Web
How will the data be collected? Face-to-face
Briefly describe your population. CGSC Faculty.
How many subjects will be surveyed? 250
How are you selecting your subjects? Using entire population.
What is your relationship with the subjects? No Relationship.

Describe how your subjects will directly benefit from participating in your research project. The following are potential benefits: 1. Individuals - may gain an awareness of their self-efficacy beliefs. Self-efficacy beliefs pertain to perceptions that individuals have about their capability to plan and execute a number of courses of action relating to tasks within a specified context. This information may be of use to individuals as they reflect on their teaching practices. 2. The CGSC leadership may gain a better

understanding of how faculty perceive their capability to plan and conduct instruction in the small group seminars/ classrooms. This understanding can then be used to determine allocation of scarce resources for helping faculty improve their self-efficacy beliefs through faculty development programs. 3. Consideration could be given to inclusion of self-efficacy as part of the mentoring and coaching programs within CGSC. 4. CGSC core documents state that the institution is striving to become a world class education center of excellence. This vision has implications for the institution, faculty and students. Faculty play an important role in achieving this vision, consequently, how they perceive their self-efficacy and what they believe about their capability to manage a complex learning environment is a crucial element in the achieving the vision.

The degree of risk to your subjects. Minimal risk. **Please explain why you chose the degree of risk above.** Some individuals may, when answering the survey questions or participating in interviews, view their answers as potential for loss of standing within their department or on their teaching team. They could also perceive their answers to be part of an evaluation of their job performance. The likelihood of being ostracized from the department or teaching team is small. Likewise, the loss of employment due to answering the survey or participating in the interview is unlikely.

List the precautions you will take to ensure the privacy of subjects and the confidentiality of the data. The survey will be coordinated with the CGSC Directorate of Academic Operations as an online instrument. Participants will be informed about the purpose of the research and how the data will be used. All references to personal information in the surveys will be removed from the responses. Additionally, once the interviews are complete, all personal data will be redacted from the interview transcripts and field notes. Participants will be informed that the surveys and interviews will be anonymous. Results will not be used for purposes of evaluating job performance nor will the data be use for personnel / human resource decisions. All copies of the informed consent forms used during the interview processes will be retained by the researcher.

Where will you keep the information you collect from you subjects? DAO will retain the results of the online surveys with one copy to the researcher. Interview transcripts and field notes will be retained by the researcher. These digital / hardcopy notes and data will be kept by the researcher in locked file drawers.

Who will have access to the information you collect from your subjects? Access will be limited to DAO personnel (surveys) and to the researcher (surveys and interviews). The final research project, a dissertation, will be anonymous, meaning that no mention will be made of individuals who participated in the surveys or interviews. The major professor for Mr. Leslie's dissertation committee, Dr. Jane Fishback, Associate Professor, Kansas State University Department of Education Leadership, may require access to redacted copies of interview transcripts and to the aggregate survey data. Dr. Fishback will not have access to the original field notes or the audio recordings.

Are you planning to use an audio or videotape? Yes. Who will make transcriptions of the tapes? Who will have access to the transcriptions? The researcher, Barry B.

Leslie, will transcribe the interviews. Only the researcher will have access to the transcriptions.

How will you ensure the subject names are not known to anyone other than the researcher(s)? QAO will substitute randomly generated identification numbers to replace participants names once the responses are returned from the online surveys. All transcripts will be redacted and fictitious names inserted into the transcripts. Copies of informed consent forms will remain separate from the transcriptions.

Will the audio/videotape be used for purposes other than this project? The sole purpose of collecting the data from the survey and interview will be for the purposes of completing a dissertation at Kansas State University.

How long will you keep information that could be used to identify your subjects and what is your plan for the disposition of the information? Original field notes, transcripts, and informed consent forms will be kept for the duration of the dissertation study or the minimum amount of time permitted by law and Kansas State University guidelines. Once the documents are no longer needed per legal or KSU guidelines, the documents will be shredded. Finally, all aggregate survey data will be retained and all redacted transcripts containing fictitious names will be retained.

How will you inform your subjects that their participation in this survey project is completely voluntary and that they can withdraw from the project at any time? Use of the Kansas State University IRB approved informed consent forms will be used for all interviews. Online surveys approved by QAO will contain a disclosure statement regarding the rights of the participants and the purpose, use and safeguarding of information provided during the survey or interview process.

How will you gain "informed consent" from your research subjects: Active consent

Appendix B - Approval for CGSC Survey Research

ATZL-SWA-QA 16 June 2009

MEMORANDUM FOR: Barry Leslie

SUBJECT: Request for Survey Research: Faculty Self-Efficacy Survey for Dissertation

1. Your request to administer a survey to CGSC Faculty is:

■ **Approved**

☐ Approved with Conditions (see below)

☐ Denied (see below)

2. Your Survey Control Number (SCN) is **09-080.** This survey number must be clearly displayed on the front of your survey instrument's cover letter as illustrated below:

CGSC APPROVED SURVEY
SCN: 09-080
16 June 2009

3. You are required to submit an *End of Project Data Collection Report* to the CGSC Quality Assurance Office when data collection for your project is complete. This report can be found at: xxx

4. Should you have questions concerning the above, please contact xxx in the CGSC Quality Assurance Office, room 3521W Lewis & Clark.

Notes:

Electronically Signed

xxx
CGSC QAO
Survey & Research Control

Appendix C - Application to Conduct Research at Kansas State University

FOR OFFICE USE ONLY: IRB Protocol # _____ Application Received: _____
Routed: _____ Training Complete: _____

Committee for Research Involving Human Subjects (IRB)

Application for Approval Form
Last revised on January 2009

ADMINISTRATIVE INFORMATION:

- **Title of Project**: (if applicable, use the exact title listed in the grant/contract application)
  Dissertation: Faculty Self-Efficacy Beliefs About Facilitating Small Group Seminar Discussions at the US Army Command and General Staff College: A Mixed Methods Sequential Explanatory Study

- **Type of Application**:
  ☒ New/Renewal ☐ Revision (to a pending new application)
  ☐ Modification (to an existing #_____ approved application)

- **Principal Investigator**: (must be a KSU faculty member)

Name:	Sarah Jane Fishbaek	Degree/Title:	Dr.
Department:	Education Leadership	Campus Phone:	(785) 532-5554
Campus Address:	354 Bluemont Hall	Fax #:	
E-mail	jfishbar@ksu.edu		

- **Contact Name/Email/Phone for Questions/Problems with Form**: Mr. Barry B. Leslie (913) 662-7157 barryleslie2@hotmail.com

- **Does this project involve any collaborators not part of the faculty/staff at KSU?** (projects with non-KSU collaborators may require additional coordination and approvals):
  ☐ No
  ☒ Yes

- **Project Classification** (Is this project part of one of the following?):
  ☐ Thesis
  ☒ Dissertation
  ☐ Faculty Research
  ☐ Other: _____
  Note: Class Projects should use the short form application for class projects.

- **Please attach a copy of the Consent Form:**
  ☒ Copy attached
  ☐ Consent form not used

- **Funding Source:** ☐ Internal ☐ External (identify source and attach a copy of the sponsor's grant application or contract as submitted to the funding agency)
  ☐ Copy attached ☒ Not applicable

- **Based upon criteria found in 45 CFR 46 – and the overview of projects that may qualify for exemption explained at** http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm#c2, **I believe that my project using human subjects should be determined by the IRB to be exempt from IRB review:**
  ☐ No
  ☒ Yes (If yes, please complete application including Section XII. C. 'Exempt Projects'; remember that only the IRB has the authority to determine that a project is exempt from IRB review)

If you have questions, please call the University Research Compliance Office (URCO) at 532-3224, or comply@ksu.edu

Last revised on June 2008

Human Subjects Research Protocol Application Form

The KSU IRB is required by law to ensure that all research involving human subjects is adequately reviewed for specific information and is approved prior to inception of any proposed activity. Consequently, it is important that you answer all questions accurately. If you need help or have questions about how to complete this application, please call the Research Compliance Office at 532-3224, or e-mail us at comply@ksu.edu.

Please provide the requested information in the shaded text boxes. The shaded text boxes are designed to accommodate responses within the body of the application. As you type your answers, the text boxes will expand as needed. After completion, print the form and send the original and one photocopy to the Institutional Review Board, Room 203, Fairchild Hall.

Principal Investigator:	Dr. Sarah Jane Fishback
Project Title:	Dissertation: Faculty Self-Efficacy Beliefs Regarding Capability to Lead Small Group Seminar Discussions
Date:	30 March 2009

NON-TECHNICAL SYNOPSIS (brief narrative description of proposal easily understood by nonscientists):

The dissertation involves survey and interview collection of data pertaining to the self-efficacy beliefs of faculty in higher education institutions (US Army Command and General Staff College, Fort Leavenworth, Kansas) to determine their perceptions about their capability to lead small group seminar discussions.

I. BACKGROUND (concise narrative review of the literature and basis for the study):

Self-efficacy is grounded in the Social Cognitive Theory and Self-Efficacy Theories of Albert Bandura. The Social Cognitive Theory states that human beings are agentive in nature and have the capability to influence their environment in order to produce favorable outcomes. Central to the idea of human agency is Bandura's theory of self-efficac. The concept of self-efficacy involves an individual's perception about their capability to successfully complete a task. The higher the self-efficacy beliefs, the more likely an individual will be to engage in difficult tasks, persist when the task becomes problematic, and put forth more effort when the task is challenging. This theory has application in numerous domains to include education. Most of the education self-efficacy research focuses on K-12 grades with a small, scattered, but growing number of studies aimed at higher education. Few of these studies consider the self-efficacy beliefs of faculty. This study will use a modified version of the Ohio State Teachers Self-Efficacy Scale (OSTES) to measure the self-efficacy beliefs of faculty at the Command and General Staff College.

II. PROJECT/STUDY DESCRIPTION (please provide a concise narrative description of the proposed activity in terms that will allow the IRB or other interested parties to clearly understand what it is that you propose to do that involves human subjects. This description must be in enough detail so that IRB members can make an informed decision about proposal).

This study of Faculty Self-Efficacy involves a mixed methods sequential explanatory design (quantitative to qualitative) meaning that quantitative data is gathered first followed up by indepth interviews. The mixed methods sequential explanatory design consists of two distinct phases: quantitative (usually emphasized) followed by qualitative (usually explanatory). In this design, it is the intent of the researcher to first collect quantitative data and conduct analysis in Phase I. In Phase II, the researcher will collect qualitative data and conduct analysis in order to further explain or elaborate on the numerical data from Phase I. A connecting intermediate stage between Phase I and Phase II will be used to generate interview questions and develop a purposeful interview selection matrix for Phase II. The rationale for this design is that the quantitative data and findings will provide a general understanding of the problem. The qualitative data and analysis will refine the Phase I statistical results by exploring faculty views through in-depth interviews.

III. OBJECTIVE (briefly state the objective of the research – what you hope to learn from the study):

It is the intent of the researcher to determine the level of self-efficacy beliefs among faculty at the US Army Command and General Staff College. First, the entire faculty body will be surveyed to determine their sense of self-efficacy regarding facilitating discussions in small seminar classroom environments. Second, once this data is collected and analayzed, the emerging themes will drive the

types of questions to be used in a smaller number of in-depth, one on one personal interviews. It is the intent of the researcher to use the interview data to further explain the emerging themes obtained from the quantitative survey data.

IV. DESIGN AND PROCEDURES (succinctly outline formal plan for study):

A. Location of study:	US Army Command and General Staff College main campus at Fort Leavenworth, Kansas and satellite campuses at Fort Belvoir, Virginia; Fort Gordon, Georgia; Fort Lee, Virgina
B. Variables to be studied:	1. Faculty longevity at the college, 2. Gender, 3. Experience in teaching, 4. Age, 5. Department of assignment, 6. Technical background, and 7. Faculty development training
C. Data collection methods: (surveys, instruments, etc – PLEASE ATTACH)	Surveys and Interviews
D. List any factors that might lead to a subject dropping out or withdrawing from a study. These might include, but are not limited to emotional or physical stress, pain, inconvenience, etc.:	Inconvience due to teaching or professional duties. Lack of interest in follow through due to the nature of the topic. Fear of disclosing demographic or teaching practices information.
E. List all biological samples taken: (if any)	None
F. Debriefing procedures for participants:	The survey will be conducted online in coordination with the Department of Quality Assurance, US Army Command and General Staff College. Participants will be given an online consent form / acknowledgement form. Participants will be told about the study, the reason for collecting the data, use of the data, safeguards and security of the data. Participants will be allowed to review their survey before submission and, the participants will be given access to the final report. Interviews, done in person, will be digitally recorded and participants will sign a hard copy consent / acknowledgement form. Once the digital data is transcribed, participants will be given a copy of the transcript for purposes of member checking - to ensure accuracy of the transcript. When the dissertation is complete, the faculty at CGSC will be given an opportunity to access the study either online through the dissertation database or via hard copy of the dissertation provided to CGSC.

V. RESEARCH SUBJECTS:

A. Source:	Faculty at the US Army Command and General Staff College, Fort Leavenworth, Kansas main campus and satellite campuses.
B. Number:	Approximately 400
C. Characteristics: (list any unique qualifiers desirable for research subject participation)	NA
D. Recruitment procedures: (Explain how do you plan to recruit your subjects? Attach any fliers, posters, etc. used in recruitment. If you plan to use any inducements, ie. cash, gifts, prizes, etc., please list them here.)	The CGSC Department of Quality Assurance in coordination with the Office of the Dean of Academics will provide access to the faculty population. Notification will be through email contact. There will be no inducements offered for this survey.

VI. RISK – PROTECTION – BENEFITS: The answers for the three questions below are central to human subjects research. You must demonstrate a reasonable balance between anticipated risks to research participants, protection strategies, and anticipated benefits to participants or others.

3

A. **Risks for Subjects:** (Identify any reasonably foreseeable physical, psychological, or social risks for participants. State that there are "no known risks" if appropriate.)

Risks are minimal, however, faculty may fear providing demographic data if they sense they may lose their anonymity. Additionally, faculty may be reluctant to share their true beliefs or opinions out of fear that supervisors or those who provide their performance evaluation may learn of their responses.

B. **Minimizing Risk:** (Describe specific measures used to minimize or protect subjects from anticipated risks.)

Risk will be minimized through the following: 1. Collaboration with the CGSC Quality Assurance Office in the development of the online survey, notification process, acknowledgements, and protection of data / protection of the archived data base. 2. Participants will be delinked from the data by means of a randomly generated PIN that they will use to enter the survey website. Results will be assigned a randomly generated numeric identification code. 3. Interview data will be transcribed and stored in such a way that only the researcher has access to the information. Seucrity of interview data includes all digital recordings, transcripts, field notes, emails, member checking, coding of data. 4. The final disseration will not include any reference to faculty by name, nor will it include any reference by which the reader could determine the identity of the faculty member(s).

C. **Benefits:** (Describe any reasonably expected benefits for research participants, a class of participants, or to society as a whole.)

Individual participants will have the opportunity to consider their beliefs about their capability to lead discussions in small group seminar settings. This opportunity for reflection may offer the participants insight into their teaching practices which can then lead to improvement. The report will provide a basis for the Command and General Staff College Administration to determine if changes need to be made to the Faculty Development Program (FDP) in order to help faculty become more adept at leading discussions. Finally, the study will provide additional material for the field of adult education as well as that of self-efficacy research.

In your opinion, does the research involve **more than minimal risk** to subjects? ("Minimal risk" means that "the risks of harm anticipated in the proposed research are not greater, considering probability and magnitude, than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.")

☐ **Yes** ☒ **No**

VII. **CONFIDENTIALITY**: Confidentiality is the formal treatment of information that an individual has disclosed to you in a relationship of trust and with the expectation that it will not be divulged to others without permission in ways that are inconsistent with the understanding of the original disclosure. Consequently, it is your responsibility to protect information that you gather from human research subjects in a way that is consistent with your agreement with the volunteer and with their expectations. If possible, it is best if research subjects' identity and linkage to information or data remains unknown.

Explain how you are going to protect confidentiality of research subjects and/or data or records. Include plans for maintaining records after completion.

See above. In summary, the online surveys will require that participants enter the website by means of a unique, randomly generated PIN. Once the survey is complete, the participant and the survey will be delinked. The database will not contain the names of the participants. Survey data in the database will be safeguarded by the CGSC Department of Quality Assurance. Interview data will be safeguarded by the researcher. Audio, digital recordings, transcripts, field notes, emails and all other materials will be retained by the researcher. The final report will not reflect participant names nor will it contain information that could lead to participant identification.

VIII. **INFORMED CONSENT:** Informed consent is a critical component of human subjects research – it is your responsibility to make sure that any potential subject knows exactly what the project that you are planning is about, and

what his her potential role is. (There may be projects where some forms of "deception" of the subject is necessary for the execution of the study, but it must be carefully justified to and approved by the IRB). A schematic for determining when a waiver or alteration of informed consent may be considered by the IRB is found at:
http://www.hsc.edu/research/comply/irb/images/slide1.jpg and at:
http://ohrp.osophs.dhhs.gov/humansubjects/guidance/45cfr46.htm#46.116. Even if your proposed activity does qualify for a waiver of informed consent, you must still provide potential participants with basic information that informs them of their rights as subjects, i.e. explanation that the project is research and the purpose of the research, length of study, study procedures, debriefing issues to include anticipated benefits, study and administrative contact information, confidentiality strategy, and the fact that participation is entirely voluntary and can be terminated at any time without penalty, etc. Even if your potential subjects are completely anonymous, you are obliged to provide them (and the IRB) with basic information about your project. See informed consent example on the URCO website. It is a federal requirement to maintain informed consent forms for 3 years after the study completion.

Yes	No	Answer the following questions about the informed consent procedures.
☒	☐	A. Are you using a written informed consent form? If "yes," include a copy with this application. If "no" see b.
☐	☒	B. In accordance with guidance in 45 CFR 46, I am requesting a waiver or alteration of informed consent elements (See Section VII above). If "yes," provide a basis and or justification for your request.
☒	☐	C. Are you using the online Consent Form Template provided by the URCO*. If "no," does your Informed Consent document has all the minimum required elements of informed consent found in the Consent Form Template*. (Please explain)
☒	☐	D. Are your research subjects anonymous*. If they are anonymous, you will not have access to any information that will allow you to determine the identity of the research subjects in your study, or to link research data to a specific individual in any way. Anonymity is a powerful protection for potential research subjects. (An anonymous subject is one whose identity is unknown even to the researcher, or the data or information collected cannot be linked in any way to a specific person).
☒	☐	E. Are subjects debriefed about the purposes, consequences, and benefits of the research*. Debriefing refers to a mechanism for informing the research subjects of the results or conclusions, after the data is collected and analyzed, and the study is over. (If "no" explain why). Attach copy of debriefing statement to be utilized.

* It is a requirement that you maintain all signed copies of informed consent documents for at least 3 years following the completion of your study. These documents must be available for examination and review by federal compliance officials.

PROJECT INFORMATION: (If you answer yes to any of the questions below, you should explain them in one of the paragraphs above)

Yes	No	Does the project involve any of the following?
☐	☒	a. Deception of subjects
☐	☒	b. Shock or other forms of punishment
☐	☒	c. Sexually explicit materials or questions about sexual orientation, sexual experience or sexual abuse
☐	☒	d. Handling of money or other valuable commodities
☐	☒	e. Extraction or use of blood, other bodily fluids, or tissues
☐	☒	f. Questions about any kind of illegal or illicit activity
☐	☒	g. Purposeful creation of anxiety
☐	☒	h. Any procedure that might be viewed as invasion of privacy
☐	☒	i. Physical exercise or stress
☐	☒	j. Administration of substances (food, drugs, etc.) to subjects

☐	☒	k.	Any procedure that might place subjects at risk
☐	☒	l.	Any form of potential abuse (i.e. psychological, physical, sexual)
☒	☐	m.	Is there potential for the data from this project to be published in a journal, presented at a conference, etc?
☒	☐	n.	Use of surveys or questionnaires for data collection. **IF YES, PLEASE ATTACH!!**

X. SUBJECT INFORMATION: (If you answer yes to any of the questions below you should explain them in one of the paragraphs above)

Yes	No		**Does the research involve subjects from any of the following categories?**
☐	☒	a	Under 18 years of age (these subjects require parental or guardian consent
☐	☒	b	Over 65 years of age
☐	☒	c	Physically or mentally disabled
☐	☒	d	Economically or educationally disadvantaged
☐	☒	e	Unable to provide their own legal informed consent
☐	☒	f	Pregnant females as target population
☐	☒	g	Victims
☐	☒	h	Subjects in institutions (e.g. prisons, nursing homes, halfway houses)
☐	☒	i	Are research subjects in this activity students recruited from university classes or volunteer pools? If so, do you have a reasonable alternative activity to participation as a research subject in your project, (i.e. another activity such as writing or reading) that would serve to protect students from undue pressure or coercion to participate in this project? (If you answered this question "Yes" explain any alternative options for class credit for potential human subject volunteers in your study

☒	☐	j.	Are research subjects audio taped? If yes, how do you plan to protect the recorded information and anticipate any additional risk? **Interviews will be digitally recorded. The digital recording will be transcribed. Once the digital interviews are transcribed and the participants have reviewed the transcripts for accuracy, the digital recording will be downloaded to a thumbdrive and the digital recordings erased. The thumb drives will be retained by the researcher as part of the field notes**
☐	☒	k.	Are research subjects video taped? If yes, how do you plan to protect the recorded information and anticipate any additional risk?

XI CONFLICT OF INTEREST: Courts have been growing that financial interests in research may threaten the safety and rights of human research subjects. Financial interests are not in themselves prohibited and may well be appropriate and legitimate. Not all financial interests raise Conflict of Interest (COI) or harm to human subjects. However, to the extent that financial interests may affect the welfare of human subjects in research, IRB committees and investigators must consider what actions regarding financial interests may be necessary to protect human subjects. Please answer the following questions:

Yes	No		
☐	☒	a	Do you or the institution have any proprietary interest in a potential product of this research, including patents, trademarks, copyrights, or licensing agreements?
☐	☒	b	Do you have an equity interest in the research sponsor (publicly held or a non-publicly held company)?
☐	☒	c	Do you receive significant payments of other sorts (e.g., grants, equipment, retainers for consultation and or honoraria from the sponsor of this research?
☐	☒	d	Do you receive payment per participant or milestone payments?
		e	If you answered yes on any of the above questions please provide adequate explanatory information so the IRB can assess any potential COI indicated above

Export Control: Training:
-The Provost has mandated that all KSU faculty/staff with a full-time appointment participate in the Export Control Program.
-If you are not in our database as having completed the Export Control training, this proposal will not be approved until your participation is verified.
-To complete the Export Control training, follow the instructions below:
Click on:

1. After signing into K-State Online, you will be taken to the Export Control Homepage
2. Read the directions and click on the video link to begin the program
3. Make sure you enter your name / email when prompted so that participation is verified

If you click on the link and are not taken to K-State Online, this means that you have already completed the Export Control training and have been removed from the roster. If this is the case, no further action is required.

-Can't recall if you have completed this training? Contact the URCO at 785-532-3224 or comply@ksu.edu and we will be happy to look it up for you.

Post Approval Monitoring: The URCO has a Post-Approval Monitoring (PAM) program to help assure that activities are performed in accordance with provisions or procedures approved by the IRB. Accordingly, the URCO staff will arrange a PAM visit as appropriate, to assess compliance with approved activities.

If you have questions, please call the University Research Compliance Office (URCO) at 532-3224, or comply@ksu.edu

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XII. PROJECT COLLABORATORS:

A. **KSU Collaborators – list anyone affiliated with KSU who is collecting or analyzing data** (List all collaborators on the project, including co-principal investigators, undergraduate and graduate students)

Name	Department:	Campus Phone:
Dr. Sarah Jane Fishback, Principle Investigator	Educational Leadership	(785) 532-5554

B. **Non-KSU Collaborators:** (List all collaborators on your human subjects research project not affiliated with KSU in the spaces below. KSU has negotiated an Assurance with the Office for Human Research Protections, OHRP, the federal office responsible for oversight of research involving human subjects. When research involving human subjects includes collaborators who are not employees or agents of KSU the activities of those unaffiliated individuals may be covered under the KSU Assurance only in accordance with a formal, written agreement of commitment to relevant human subject protection policies and IRB oversight. The Unaffiliated Investigators Agreement can be found and downloaded at:
https://www.undergrad.ksu.edu/COMS/player/content/IRB/content/Application_Attachments/Unaffiliated_Investigator_Agreement.pdf
The URCO must have a copy of the Unaffiliated Investigator Agreement on file for each non-KSU collaborator who is not covered by their own IRB and assurance with OHRP. Consequently, it is critical that you identify non-KSU collaborators and initiate any coordination and or approval process early, to minimize delays caused by administrative requirements.)

Name:	Organization:	Phone:

Does your non-KSU collaborator's organization have an Assurance with OHRP? (for Federalwide Assurance and Multiple Project Assurance (MPA) listings of other institutions, please reference the OHRP website under Assurance Information at: http://ohrp.osophs.dhhs.gov/polasur.htm):

☒ **No**
☐ **Yes** **If yes, Collaborator's FWA or MPA #** _____

Is your non-KSU collaborator's IRB reviewing this proposal?

☐ **No**
☒ **Yes** **If yes, IRB approval #** **Pending**

C. **Exempt Projects:** 45 CFR 46 identifies six categories of research involving human subjects that may be exempt from IRB review. The categories for exemption are listed here:
http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm#c1. If you believe that your project qualifies for exemption, please indicate which exemption category applies (1-6). Please remember that only the IRB can make the final determination whether a project is exempt from IRB review, or not.

Exemption Category: **CFR 46.101(b) (1) and CFR 46.101(b) (2) or (b) (3)**

XIII. **CLINICAL TRIAL** ☐Yes ☒No
(If so, please give product)

INVESTIGATOR ASSURANCE FOR RESEARCH INVOLVING HUMAN SUBJECTS

(Print this page separately because it requires a signature by the PI)

PI Name: **Dr. Sarah Jane Fishback**

Title of Project: **Dissertation Faculty Self-Efficacy Beliefs About Facilitating Small Group Seminar Discussions at the US Army Command and General Staff College A Mixed Methods Sequential Explanatory Study**

XIV ASSURANCES As the Principal Investigator on this protocol, I provide assurances for the following

A Research Involving Human Subjects This project will be performed in the manner described in this proposal, and in accordance with the Federalwide Assurance FWA00000865 approved for Kansas State University available at http://ohrp.osophs.dhhs.gov/polasur.htm#FWA, applicable laws, regulations, and guidelines. Any proposed deviation or modification from the procedures detailed herein must be submitted to the IRB, and be approved by the Committee for Research Involving Human Subjects (IRB) prior to implementation.

B. Training: I assure that all personnel working with human subjects described in this protocol are technically competent for the role described for them, and have completed the required IRB training modules found on the URCO website at: http://urco.ksu.edu/IRBOverview.html. I understand that no proposals will receive final IRB approval until the URCO has documentation of completion of training by all appropriate personnel.

C Extramural Funding: If funded by an extramural source, I assure that this application accurately reflects all procedures involving human subjects as described in the grant/contract proposal to the funding agency. I also assure that I will notify the IRB/URCO, the KSU PreAward Services, and the funding/contract entity if there are modifications or changes made to the protocol after the initial submission to the funding agency.

D Study Duration: I understand that it is the responsibility of the Committee for Research Involving Human Subjects (IRB) to perform continuing reviews of human subjects research as necessary. I also understand that as continuing reviews are conducted, it is my responsibility to provide timely and accurate review or update information when requested, to include notification of the IRB/URCO when my study is changed or completed.

E. Conflict of Interest: I assure that I have accurately described (in this application) any potential Conflict of Interest that my collaborators, the University, or I may have in association with this proposed research activity.

F Adverse Event Reporting I assure that I will promptly report to the IRB / URCO any unanticipated problems involving risks to subjects or others that involve the protocol as approved.

G. Accuracy I assure that the information herein provided to the Committee for Human Subjects Research is to the best of my knowledge complete and accurate.

_____ _____

(Principal Investigator Signature) (date)

Appendix D - KSU Research Compliance Office (URCO) Institutional Review Board (IRB) Approval of Research

Date: Mon, 21 Jun 2010 10:53:22 -0400
From: xxx
To: xxx
Subject: Fwd: IRB Stipulations- #5438

Dear Barry,
I am forwarding the approval for the stipulations for IRB 5438.
I haven't seen any other paperwork on this matter.

Jane

----- Forwarded Message -----
From: "Adrian Self" xxx
To: "Sarah Fishback" xxx
Sent: Monday, June 21, 2010 8:23:02 AM
Subject: RE: IRB Stipulations- #5438

Dr Fishback-

IRB #5438 was approved effective 06-03-2010 through 06-03-2011.

Thanks,

Adrian

Appendix E - Approval to Conduct Pilot Survey at the Army Management Staff College (AMSC)

-----Original Message-----
From: Jaeger, Bruce R Dr CIV USA TRADOC
Sent: Wednesday, June 30, 2010 9:30 AM
To: Leslie, Barry B Mr CIV USA TRADOC
Subject: Re: Follow up Regarding Dissertation Survey Instrument Pilot

Concur with all.

Bruce J.

----- Original Message -----
From: Leslie, Barry B Mr CIV USA TRADOC
To: Jaeger, Bruce R Dr CIV USA TRADOC
Sent: Wed Jun 30 10:29:11 2010
Subject: Follow up Regarding Dissertation Survey Instrument Pilot

Dr. Jaeger,

Thank you for meeting with me on 22 June 2010 to discuss the pilot of my dissertation survey instrument with the AMSC faculty at the Fort Leavenworth and Fort Belvoir Campuses.

This e-mail confirms your approval of the survey instrument pilot.

Thanks and I appreciate AMSC support in completing the research for my dissertation.

Barry

Appendix F - Interview Informed Consent Form & Protocol

KANSAS STATE UNIVERSITY
INFORMED CONSENT

PROJECT TITLE: Faculty Beliefs About Facilitating Small Group Seminar Discussions

APPROVAL DATE OF PROJECT:
EXPIRATION DATE OF PROJECT:

PRINCIPAL INVESTIGATOR: Dr. Jane Fishback, Associate Professor, Department of Education Leadership, Kansas State University

CO-INVESTIGATOR(S): Mr. Barry B. Leslie

CONTACT NAME AND PHONE FOR ANY PROBLEMS/QUESTIONS: Dr. Jane Fishback, Bluemont Hall, Kansas State University. Telephone: xxx

IRB CHAIR CONTACT/PHONE INFORMATION*:*

- Rick Scheidt, Chair, Committee on Research Involving Human Subjects, Kansas State University, Manhattan, KS 66506, xxx.

- Jerry Jaax, Associate Vice Provost for Research Compliance and University Veterinarian, Kansas State University, Manhattan, KS 66506, xxx.

SPONSOR OF PROJECT: None

PURPOSE OF THE RESEARCH: The purpose of this research is to provide data for a dissertation on the subject of faculty beliefs about facilitating discussions in small group seminar classrooms at the US Army Command and General Staff College. The data is being collected to better understand what the faculty believe about facilitating small group seminar discussions.

PROCEDURES OR METHODS TO BE USED: Selected participants will be asked to participate in an in-depth interview that will focus on their experiences regarding facilitating discussions in small group seminar classrooms. Participants will be notified about the purpose of the research, their right to confidentiality, the use of the interview data and assurance of protection. They will also be afforded an opportunity to review the transcripts of the interview and make changes. Once the research project is complete, they will be given the opportunity to review the results of the study. The interview will

be recorded digitally, and the researcher will make written field notes about the interview that will augment the digital data.

ALTERNATIVE PROCEDURES OR TREATMENTS, IF ANY, THAT MIGHT BE ADVANTAGEOUS TO SUBJECT: None.

LENGTH OF STUDY: The estimated length of the interview will be about 30 minutes.

RISKS OR DISCOMFORTS ANTICIPATED: No known risks.

BENEFITS ANTICIPATED: Benefits of the research may include a heightened awareness of individual beliefs regarding facilitating discussions in the classroom.

EXTENT OF CONFIDENTIALITY: Interviews will be digitally recorded. Transcripts of the recordings will have all identifying data redacted and fictitious names inserted. All survey and interview materials will be kept under the control of the researcher.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS: None

PARENTAL APPROVAL FOR MINORS: Not Applicable.

TERMS OF PARTICIPATION: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

Participant Name: _____ Date: _____

Participant Signature: _____ Date: _____

Witness to Signature: _____ Date: _____
Barry B. Leslie

Interview Protocol

Interview Project: Faculty Beliefs About Facilitating Small Group Seminar Discussions

Time of Interview: Start _____ **Finish** _____

Date of Interview: _____ **Location:** _____

Interviewer: Mr. Barry B. Leslie

Person Interviewed: _____

This project will collect participant data through an interview to better understand what they believe about their capability to facilitate small group seminar discussions.

Questions:

1. Describe your experiences facilitating discussion in the classroom.

2. What does good facilitation of discussion look like?

3. Describe the characteristics of a competent facilitator?

4. What can strengthen your capability to facilitate discussion in the classroom?

5. What can weaken your capability to facilitate discussion in the classroom?

6. What can you do to prepare yourself and the students for discussion?

7. What can you do to create a classroom environment that encourages discussion?

8. What are the institutional responsibilities regarding developing instructor competence to facilitate discussion?

9. How do student and faculty deployment experiences affect discussion?

Appendix G - 2009 CGSC Faculty Demographics

Demographic Title	Number of Faculty	Percent
Total Faculty	353	100
Employment Status		
Civilian	240	68
Military Officer	113	32
Gender		
Male	319	90
Female	10	3
No Response	23	7
Race / ethnicity		
Yes	22	6
No	246	70
No Response	86	24
Degree		
Bachelors	20	6
Masters	258	73
Doctorate	50	14
No Response	26	7
Teaching Experience – Number of Assignments		
1 or Less	40	11
Greater 1 – Less than 2	30	8
Greater 2 – Less than 5	66	18
Greater 5 – Less than 10	103	29
More than 10	81	23
No Response	38	11
Faculty Title		
Instructor	154	44
Assistant Professor	140	40
Associate Professor	27	7
Professor	11	3
No Response	21	6

Department of Quality Assurance, CGSC (September, 2009)

Appendix H - Faculty Self-Efficacy Beliefs Scale (FSEBS)

Your Current Responses for "Faculty Beliefs about Facilitating Discussion"

Your current status is:
{Choose one}
( ) Military
( ) Civilian

How long have you been assigned as a faculty member at CGSC (Years and months)?
{Enter text answer}
[ ]

Gender:
{Choose one}
( ) Male
( ) Female

Age:
{Enter text answer}
[ ]

Race/ethnicity
{Enter text answer}
[ ]

What is your highest education level?
{Choose one}
( ) Less than a Master's Degree
( ) One or more Master's Degrees
( ) Coursework leading to a Doctorate Degree
( ) Completion of all doctoral work except dissertation (ABD)
( ) One or more earned Doctorate Degrees
( ) Other [ ]

What previous teaching experience did you have before your assignment at CGSC?
{Choose all that apply}
( ) Military service college (e.g. CGSC)
( ) Military service academy (e.g. West Point)
( ) Civilian university or college
( ) Elementary or secondary schools
( ) Military training classrooms
( ) Other [ ]

What is the directorate to which you are assigned?
{Choose one}
( ) Center for Army Tactics
( ) Directorate of Joint, Interagency, Multinational Operations (DJIMO)
( ) Directorate of Logistics and Resource Operations (DLRO)
( ) Directorate of Military History (DMH)
( ) Directorate of Command and Leadership (DCL)
( ) Digital Leader Development Center (DLDC)
( ) Other [ ]

What is your current faculty title?
{Choose one}
( ) Instructor
( ) Assistant Professor
( ) Associate Professor
( ) Professor
( ) Other [ ]

What is your current leadership position?
{Enter text answer}
[ ]

plan discussion activities that accommodate individual differences among students.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

plan assessment procedures that accommodate individual differences among students.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

facilitate discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

use allocated time for discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

explain directions for discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

maintain student engagement during discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

redirect students who wander away from the discussion topic.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

create a classroom climate that is courteous and respectful.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

create a classroom climate that is fair and impartial.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

describe to students the specific learning outcomes of the discussion session.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

develop student critical thinking skills.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

relate to students the importance of discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

identify discussion techniques, aids, and materials.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

apply discussion techniques at an appropriate pace among students.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

provide students with discussion opportunities for learning at more than one cognitive level.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

help students identify misunderstandings during discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

provide students with specific feedback about their discussion participation.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

provide students with suggestions for improving discussion skills.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

involve students in synthesis of concepts during discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

solicit student questions during discussion that enables critical thinking.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

encourage student use of critical analysis and problem solving.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

evaluate student involvement during discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

adjust facilitation techniques as needed.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

manage student behavior during discussion of emotional topics or issues.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

encourage students to develop critical thinking skills.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

motivate students to engage in discussion to their full potential.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

produce a positive discussion environment for international students.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

improve discussion skills in students, including those with English as a second language.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

role model discussion skills for the students.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

create a classroom environment in which students engage in collaborative discussion.
{Choose one}
( ) Very Weak
( ) Weak
( ) Moderate
( ) Strong
( ) Very Strong

Appendix I - Approval for Use of Teacher Efficacy Beliefs Scale-Self (TEBS-S)

-----Original Message-----

From: Amy B. Dellinger [mailto:xxx]
Sent: Wednesday, March 03, 2010 12:10 PM
To: Leslie, Barry B Mr CIV USA TRADOC
Subject: RE: Self-Efficacy Research - Barry Leslie (UNCLASSIFIED)

Barry,

I am pleased that you have chosen to adapt the TEBS to your study topic. A shorter version (30 items) is available in an article in Teaching and Teacher Education (Dellinger, A., Bobbett, J., Olivier, D., & Ellett, C. (2008). Measuring teachers' self-efficacy beliefs: Development and use of the TEBS-Self. Teaching and Teacher Education, 24, 751-766).

Best wishes for a successful study,

Amy B. Dellinger

Appendix J - Teacher Efficacy Beliefs Scale –Self (TEBS-S)

TEBS-Self[a] (Dellinger, 2008, p. 764)

Response scale:
1. Weak beliefs in my capabilities[b]
2. Moderate beliefs in my capabilities
3. Strong beliefs in my capabilities
4. Very strong beliefs in my capabilities

Item	Right now in my present teaching situation, the strength of my personal beliefs in my capabilities to . . .	1 2 3 4
1.	plan activities that accommodate the range of individual differences among my students	1 2 3 4
2.	plan evaluation procedures that accommodate individual differences among my students	1 2 3 4
3.	use allocated time for activities that maximize learning	1 2 3 4
4.	Effectively manage routines and procedures for learning tasks	1 2 3 4
5.	clarify directions for learning routines	1 2 3 4
6.	maintain high levels of student engagement in learning tasks	1 2 3 4
7.	redirect students who are persistently off task	1 2 3 4
8.	maintain a classroom climate of courtesy and respect	1 2 3 4
9.	maintain a classroom climate that is fair and impartial	1 2 3 4
10.	communicate to students the specific learning outcomes of the lesson	1 2 3 4
11.	communicate to students the purpose and/or importance of learning tasks	1 2 3 4
12.	implement teaching methods at an appropriate pace to accommodate differences among my students	1 2 3 4
13.	utilize teaching aids and learning materials that accommodate individual differences among my students	1 2 3 4
14.	provide students with opportunities to learn at more than one cognitive and/or performance level	1 2 3 4
15.	communicate to students content knowledge that is accurate and logical	1 2 3 4
16.	clarify student misunderstandings or difficulties in learning	1 2 3 4
17.	provide students with specific feedback about their learning	1 2 3 4
18.	provide students with suggestions for improving learning	1 2 3 4
19.	actively involve students in developing concepts	1 2 3 4
20.	solicit a variety of questions throughout the lesson that enable higher order thinking	1 2 3 4
21.	actively involve students in critical analysis and/or problem solving	1 2 3 4
22.	monitor students' involvement during learning tasks	1 2 3 4
23.	adjust teaching and learning activities as needed	1 2 3 4
24.	manage student discipline/behavior	1 2 3 4
25.	involve students in developing higher order thinking skills	1 2 3 4
26.	motivate students to perform to their fullest potential	1 2 3 4
27.	provide a learning environment that accommodates students with special needs	1 2 3 4
28.	improve the academic performance of students, including those with learning disabilities[c]	1 2 3 4

29. provide a positive influence on the academic development of students	1 2 3 4
30. maintain a classroom environment in which students work cooperatively	1 2 3 4
31. successfully maintain a positive classroom climate[d]	1 2 3 4

a Also referred to as the Teacher Self-Efficacy Beliefs Scale—personal or Self-Form.
b Dellinger (2001) used ability instead of capability.
c Items 28-30 not included in Dellinger (2001) analysis due to missing data.
d Item 31 only included in Dellinger (2001).

Appendix K - Edits and Changes to Dellinger's (2008) TEBS-S

Item	Edits to Dellinger's (2008, p. 764) TEBS-S
1	Added "discussion"; deleted "the range of"; deleted "my"
2	Added "assessment"; deleted "evaluation"; deleted "my"
3	Added "discussion"; deleted "activities that maximize learning" [a]
4	Deleted "Effectively"; added "discussion"; deleted "learning tasks"
5	Deleted "clarify directions for learning routines"; added "explain directions for discussion."
6	Deleted "in learning tasks"; added "during discussion."
7	Deleted "persistently off task"; added "wander away from the discussion topic."
8	Deleted "maintain a classroom climate of courtesy and respect"; added "create a classroom climate that is courteous and respectful"
9	Deleted "maintain"; added "create"
10	Deleted "communicate" and "lesson"; added "describe" and "discussion session."
11	Deleted question; added "relate to students the importance of discussion."
12	Deleted question. added "apply discussion techniques at an appropriate pace among students."
13	Deleted question. added "identify discussion techniques, aids, and materials."
14	Added "discussion opportunities"; deleted "and/or performance level"
15	Deleted question.
16	Deleted question. added "help students identify misunderstandings during discussion."
17	Deleted "learning"; added "discussion participation."
18	Deleted "learning"; added "discussion skills."
19	Deleted "actively"; added "during discussion."
20	Deleted question; added "solicit student questions during discussion that enables critical thinking."
21	Deleted "actively".
22	Deleted question; added "evaluate student involvement during discussion."
23	Deleted "teaching and learning activities"; added "discussion techniques"
24	Deleted question; added "manage student behavior during discussion of emotional topics."
25	Deleted "higher order"; added "critical thinking"
26	Deleted "to perform to"; added "engage in discussion at"
27	Deleted question; added "produce a positive discussion environment for international students."

28	Deleted question; added “improve discussion skills of students, including those with English as a second language.”
29	Deleted question; added “role model discussion skills for students.”
30	Deleted “maintain”; added “create”; deleted “work cooperatively”; added “engage in collaborative learning.”
31	Deleted question.

Item	Added Questions to Dellinger’s (2008, p. 764) TEBS-S
3	Added question “facilitate discussion.”
12	Added question “develop student critical thinking skills.”

Appendix L - Independent Coder Instructions and Coding Book

Coding is a process by which researchers try to identify categories of information, themes in the transcript, or develop ideas about what individuals had to say on a topic. As an independent coder, you do not need to agree with anyone about how you chose to code the text. The categories are provided on the next page to provide a framework for collecting ideas about general topics in the transcript.

1. Coding transcripts may include all of the categories listed below as well as additional categories determined by you, the independent coder. If you believe additional categories are warranted, mark the transcript and indicate the category number.

2. Sections of the transcript may have multiple Category Codes.

3. Mark the section of text in a way that captures the term, idea, or theme.

4. Write notes in the margin of the transcript to clarify your thoughts.

5. Include any reflections or ideas you may have about the topics in the transcript. Do not feel that you have to find, or are limited to, the categories or examples in the codebook.

6. You have been provided with a digital copy of the transcript. Using the "Track Change" option in Microsoft Word, located in the menu under "Tools" is a good method to write notes. If you prefer to code a hard copy of the transcript by hand, that method is fine.

7. Ensure you signed the disclosure statement and returned a copy to the researcher: Barry Leslie, Eisenhower Hall, Fort Leavenworth, Kansas. Telephone: xxx. E-mail: xxx.

8. Please return digitally coded copies of the transcript to barryleslie2@hotmail.com.

9. If possible use a digital sender to produce a .pdf of any transcripts coded by hand along with notes. Send the digital copy to xxx.

Your comments, thoughts, ideas, and perceptions are critical for coding this transcript.

Coding Book

Category 1.0 - Discussion – any reference to the topic of discussion.

a. Definition: "Incorporates reciprocity and collaboration, formality and informality . . . by a group of two or more to share views and engage in mutual and reciprocal critique" (Brookfield & Preskill, 2005, pp. 6, 7).

b. Flagging Examples – Mark sections about discussion that may include, but are not limited to the terms, themes, or ideas as follows:

Conversation
Democratic Practices
Dialogue
Classroom Environment
Collaboration
Control
Critical Thinking, Critical Listening
Interaction
Intellectual or Emotional Experiences
Knowledge Construction
Learning, Learning Processes
Learning Communities
Participation
Student Centric Learning
Student Collaboration
Talking
Voice, Share Views

Category 2.0 - Facilitation – any reference to the topic of facilitation.

a. Definition: "Focus on the needs and goals of learners in a flexible manner . . . Oversees, guides, and directs learners by asking questions, exploring options, suggesting alternatives, and helping students develop criteria to make informed choices about courses of action . . . Overall goal is to develop a capacity for independent action, initiative, and responsibility" (Grasha, 1996, p. 154).

b. Flagging Examples - Mark any sections about facilitation that may include, but not limited to, the terms, themes, or ideas listed below:

Classroom Management
Classroom Environment, Trust, Respect, Commitment
Commitment
Competence
Critical Thinking, Critical Listening
Discussion Management
Empower Students

Experiential Learning Model
Influence, Guide
Learner Centered Process, Learning Outcomes, Learning Objectives
Learning Styles
Myers-Briggs (MBTI)
Questioning
Share Views
Social Interaction for Shared Learning
Students teaching Students, Peer Teaching, Peer Facilitation
Use of Technology
Value Individuals, Relationships

Category 3 - Faculty – any reference to the topic of faculty, teachers, instructors, or the facilitator.

a. Definition: "Personnel (military and civilian) who–as determined by the college or school–teach, prepare, or design professional military education (PME) curriculum, or conduct research related to PME" (Chairman, Joint Chiefs of Staff Instruction, 2009, p. B-4).

b. Flagging Examples - Mark any sections about faculty that may include, but not limited to, the terms, themes, or ideas listed below:

Capability
Coach
Collaboration
Competence
Development, Training, Re-Greening
Deployment Experiences
Expectations, Rules, Standards
Faculty Evaluations, Assessments
Guide
Mentor
Preparation of Materials, Lessons, Readings
Professionalism
Relationships
Respect, Trust, Commitment
Teaching Experiences

Category 4 - Classroom environment – any reference to the environment that the faculty create or manage within the classroom.

a. Definition: An environment that incorporates essential conditions necessary for a motivational classroom and creates a climate producing democratic processes.

b. Flagging Examples - Mark any sections about classroom environment that may include, but not limited to, the terms, themes, or ideas listed below:

Collaboration
Competence
Democratic
Expectations
Inclusion
Mutual Respect
Participation, Speaking Up
Preparation (both faculty and students)
Relationships
Peer to Peer Teaching, Facilitation
Trust, Cohesion, Unity
Use of Technology
Value People

Category 5 - Institution – any reference to the US Army Command and General Staff College and Faculty Development Programs

a. Definition: The U.S. Army Command and General Staff College, all staff elements, and the teaching departments with the Command and General Staff School (Department of Command and Leadership (DCL), Department of Tactics (DTAC), Department of Joint, International, and Multinational Operations (DJIMO), Department of Logistics (DLRO), Department of Military History (DMH).

b. Flagging Examples - Mark any sections about the institution that may include, but not limited to, the terms, themes, or ideas listed below:

Departments (as noted above)
Faculty Development Program
Leveraging Faculty Experience, Expertise
Learning Models (e.g. ELM, ALM)
Levels of Learning, Philosophy of Learning
Materials, Lesson Plans, Courses, Classroom Support
Mentoring and Coaching Programs
Professional Development (Internal and External)
Re-Greening, Deployments
Staff Sections (Any)