MOTIVATIONAL CONDITIONS EXPERIENCED BY DIVERSE ADULT LEARNERS IN

COHORT-BASED ACCELERATED DEGREE PROGRAMS:

QUANTIFYING LEARNER PERCEPTIONS FOR ASSESSMENT AND ENHANCEMENT

OF ADULT MOTIVATION TO LEARN

by

PAMELA KAY BARNES

B.B.A., Wichita State University, 1998
M.B.A., Wichita State University, 2000
M.S., Kansas State University, 2003

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Educational Leadership
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2012

Abstract

This study measured levels of conditions eliciting intrinsic motivation to learn and examined the correlation of those measures with learner-perceived level of learning. Acquired from adult learners participating in one Midwestern University's cohort-based degree programs, data helped determine the extent to which learners perceived the presence of four conditions—inclusion, attitude, meaning, and competence—in both classroom and out-of-classroom learning environments. Additionally, the data helped determine which environment and specific conditions most closely correlated with learner-perceived level of current learning; and provided insight into experiences adult learners found positively or negatively impacting motivation to learn.

Surveys were administered in-person to 137 of 150 students within 13 randomly selected cohorts. The survey instrument included a single overall learning attitudinal statement, two Likert scales (*classroom* and *out-of-classroom*) each comprised of subscales (*inclusion*, *attitude*, *meaning*, and *competence*) operationalizing the *Motivational Framework for Culturally Responsive Teaching* (Framework), a brief demographic section, and a concluding open-ended question regarding experiences impacting motivation to learn. The study used non-parametric analysis to examine dependent variables, motivation conditions, with respect to independent variables; age, gender, race, and degree-level. Additionally, non-parametric analysis examined correlation between condition measures and learner-perceived overall learning.

Significant differences were found in two demographic categories. Underrepresented race/ethnicity students (as a combined category) rated overall *out-of-classroom* conditions higher than predominant race/ethnicity students; and, associate-level students rated *classroom* conditions lower than bachelors and masters-level students. Significant differences also occurred in subscales. Female students rated *classroom attitude* conditions higher than males; underrepresented students rated *classroom attitude* and *competence*, and *out-of-classroom attitude*, *meaning*, and *competence*, higher than predominant students; associates-level students rated *classroom inclusion* lower than both bachelors and masters-level students; and both associates and masters-level students rated *classroom competence* lower than bachelors-level students.

All conditions, in both environments (classroom and out-of-classroom), were significantly correlated with learner-perceived level of learning; and the classroom scale

demonstrated considerably stronger correlation than did the out-of-classroom scale. Of all subscales, both classroom and out-of-classroom meaning demonstrated the strongest correlation with learner-perceived level of learning.

Forty-eight respondents (35% of sample) offered responses to the survey's concluding statement. Of those respondents offering comments in regard to classroom motivation, instructor characteristics were most often noted. And, of those commenting on out-of-classroom motivation, team formulation and characteristics were predominant.

Through the creation of the *Motivation Conditions in Learning Instrument™,* this study produced benchmark measures for each Framework condition experienced in both cohort-based classrooms and out-of-classroom team learning; identified differences in measures across demographic categories; and identified correlation of measures with learner-perceived level of learning. Finally, the study provided insight into learner experiences impacting motivation to learn.

MOTIVATIONAL CONDITIONS EXPERIENCED BY DIVERSE ADULT LEARNERS IN
COHORT-BASED ACCELERATED DEGREE PROGRAMS:
QUANTIFYING LEARNER PERCEPTIONS FOR ASSESSMENT AND ENHANCEMENT
OF ADULT MOTIVATION TO LEARN

by

PAMELA KAY BARNES

B.B.A., Wichita State University, 1998
M.B.A., Wichita State University, 2000
M.S., Kansas State University, 2003

A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Educational Leadership
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2012

Approved by:

Major Professor
Sarah J. Fishback

Copyright

PAMELA KAY BARNES

2012

Abstract

This study measured levels of conditions eliciting intrinsic motivation to learn and examined the correlation of those measures with learner-perceived level of learning. Acquired from adult learners participating in one Midwestern University's cohort-based degree programs, data helped determine the extent to which learners perceived the presence of four conditions—inclusion, attitude, meaning, and competence—in both classroom and out-of-classroom learning environments. Additionally, the data helped determine which environment and specific conditions most closely correlated with learner-perceived level of current learning; and provided insight into experiences adult learners found positively or negatively impacting motivation to learn.

Surveys were administered in-person to 137 of 150 students within 13 randomly selected cohorts. The survey instrument included a single overall learning attitudinal statement, two Likert scales (*classroom* and *out-of-classroom*) each comprised of subscales (*inclusion*, *attitude*, *meaning*, and *competence*) operationalizing the *Motivational Framework for Culturally Responsive Teaching* (Framework), a brief demographic section, and a concluding open-ended question regarding experiences impacting motivation to learn. The study used non-parametric analysis to examine dependent variables, motivation conditions, with respect to independent variables; age, gender, race, and degree-level. Additionally, non-parametric analysis examined correlation between condition measures and learner-perceived overall learning.

Significant differences were found in two demographic categories. Underrepresented race/ethnicity students (as a combined category) rated overall *out-of-classroom* conditions higher than predominant race/ethnicity students; and, associate-level students rated *classroom* conditions lower than bachelors and masters-level students. Significant differences also occurred in subscales. Female students rated *classroom attitude* conditions higher than males; underrepresented students rated *classroom attitude* and *competence*, and *out-of-classroom attitude*, *meaning*, and *competence*, higher than predominant students; associates-level students rated *classroom inclusion* lower than both bachelors and masters-level students; and both associates and masters-level students rated *classroom competence* lower than bachelors-level students.

All conditions, in both environments (classroom and out-of-classroom), were significantly correlated with learner-perceived level of learning; and the classroom scale

demonstrated considerably stronger correlation than did the out-of-classroom scale. Of all subscales, both classroom and out-of-classroom meaning demonstrated the strongest correlation with learner-perceived level of learning.

Forty-eight respondents (35% of sample) offered responses to the survey's concluding statement. Of those respondents offering comments in regard to classroom motivation, instructor characteristics were most often noted. And, of those commenting on out-of-classroom motivation, team formulation and characteristics were predominant.

Through the creation of the *Motivation Conditions in Learning Instrument™*, this study produced benchmark measures for each Framework condition experienced in both cohort-based classrooms and out-of-classroom team learning; identified differences in measures across demographic categories; and identified correlation of measures with learner-perceived level of learning. Finally, the study provided insight into learner experiences impacting motivation to learn.

Table of Contents

List of Figures

List of Tables

Acknowledgements

Dedication

In memory of my father, Mickey Merle Barnes.

CHAPTER 1 - Introduction

Overview

Education is essential for all. Three major philosophies profoundly influence the character of United States education. First is Jeffersonian ideals of limited government and freedom of expression, second is capitalism (and the rationality of markets), and third is a commitment to equal opportunity and social mobility (Eckel & King, 2004). This study contributes to commitment of equal opportunity and social mobility within the practice of adult education.

Five percent of the United States population aged 16 or older participates in part-time degree or diploma programs (National Center for Education Statistics, 2007). Often delivered in an accelerated format and cohort-based, part-time programs offer adult learners the opportunity to earn a degree while upholding work and personal responsibilities (Collins, 2005; Saltiel & Russo, 2001; Wenger, 1998; Wlodkowski, 2003a). Many cohort-based programs require student participation both within a cohort, uniformly completing a preplanned course sequence, and within a subset learning team working together to complete projects and assignments throughout the program (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). As stated by Imel (2002), the cohort's key contribution to student success is learners taking responsibility for creating and enhancing learning experiences for themselves as well as other cohort members. From this perspective, cohort and learning team members are co-facilitators of learning. Importantly, the most successful cohorts value diversity (Lawrence, 1997).

In 2010, the National Center for Education Statistics projected enrollment increases for years 2007 through 2018 as follows: 26 percent Black non-Hispanic, 38 percent Hispanic, 29 percent Asian or Pacific Islanders, 32 percent American Indian or Alaska native; and four percent White non-Hispanic. As this increasingly diverse student population enters education with differing perceptions and ways of making meaning, educators (and, presumably, co-facilitators) must be increasingly intentional about practices enhancing motivation to learn for all students (Ginsberg & Wlodkowski, 2009).

Learning is inseparable from motivation (O'Neil & Drillings, 1994; Ryan & Deci, 2002; Sivan, 1986; Walberg & Uguroglu, 1980; Zull, 2002), always cultural (Cranton, 1996; Hays,

2001; Markus & Kitayama, 1991; Wlodkowski, 2008), and impeded when learners feel excluded or marginalized in a learning environment (Ginsberg & Wlodkowski, 2009; Thernstrom & Thernstrom 2003; Watson, Terrell, Wright & Associates, 2002). Facilitators cannot motivate learners directly (MacKeracher, 2004; Wlodkowski, 2008), but they can influence motivation through "understanding another's perspective and inviting or drawing forth natural and culturally embedded sources of strength" (Ginsberg and Wlodkowski 2009, p. 31). Founded upon well-researched ideas and findings, and considerably supported by neuroscientific principles and research, Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching* identified inclusion, attitude, meaning, and competence as interrelated and reciprocal conditions eliciting intrinsic motivation to learn for all learners. In equitable learning environments, there should be no significant differences in learner-perceived levels of conditions across any given demographic segment.

Facilitated through the creation of the *Motivational Conditions in Learning Instrument*[©] (MCLI[©]), this study produced a valid and reliable instrument for quantitatively assessing learner-perceived levels of conditions eliciting intrinsic motivation to learn in both classroom and out-of-classroom learning environments. Further the study produced benchmarks for each condition (inclusion, attitude, meaning, and competence) in both environments (classroom and out-of-classroom team learning); identified differences across demographic categories; and identified relationships between measures of condition and learner-perceived level of overall learning. Finally, the study provided insight into learner experiences impacting motivation to learn.

Significantly benefiting institutions focused on diversity within North Central Association of Colleges and Schools' American Quality Improvement Program (AQIP), Continuous Quality Improvement (CQI), or strategic enrollment management methodologies; the MCLI[©] can facilitate benchmarking and measurement of conditions over time. Moreover, Wlodkowski's (2008) *Enhancing Adult Motivation to Learn*, offers educators and co-facilitators access to relevant and immediately applicable strategies for enhancing adult motivation to learn through any condition (inclusion, attitude, meaning, and/or competence) benefiting from improvement.

This chapter first provides background perspectives on adult learner characteristics and assumptions, CBL programs, diversity, and motivation to learn. Next, study details are provided

including problem and purpose statements, research questions, methodology, definition of terms, limitations and assumptions, and study significance.

Background

Adult Learner Characteristics and Assumptions

The United States Department of Education defines adult learners as those "engaged in some form of instruction or educational activity to acquire knowledge, information, and skills necessary to succeed in the workforce, learn basic skills, earn credentials, or otherwise enrich their lives" (Lumina Foundation, 2009). Further, the National Center for Education Statistics (1996) defines adult learners as nontraditional students exhibiting one or more of seven characteristics: (a) delayed enrollment in postsecondary education, (b) part time attendance, (c) financially independent of parents, (d) full time work while enrolled, (e) dependents other than a spouse, (f) single parent, and (g) lack a traditionally attained high school diploma. Finally, principal assumptions about adult learners include self- direction, participation corresponding with social role identity, interest in immediate application, meaning making from an ever-increasing reservoir of experiences, and internal motivation (Knowles, 1980). Of these assumptions meaning making from experience and internal motivation formed the foundation of this study.

Building upon the work of notable scholars such as Dewey (1938), Freire (1970, 1973), Habermas (1972), and Piaget (1972), many researchers and theorists have studied the impact of experience on adult learning and development (Brookfield, 1986; Kegan, 1994; Knowles, 1980; Kolb, 1984; Lindeman, 1961; Mezirow, 1978). Two theories most widely discussed, and further explained in Chapter Two, are Perspective Transformation (Mezirow, 1978, 1981, 2000) and Models of Consciousness (Kegan, 1994).

Knowles' (1980) stated adult learners are internally motivated. Within internal motivation literature, two distinct categories of discussion exist. The first focuses on *motivation to participate* whereas the second focuses on *motivation to learn*. Most important to this study, and further discussed in Chapter Two, motivation to learn explores adult motivation in the action of learning rather than in the choice of participation.

Cohort-Based Learning Programs

The Commission for Accelerated Programs defines accelerated learning in higher education as credit-bearing programs "reduced in both duration and contact hours as compared to the traditional semester degree program" (2010, para.1) and estimates over 300 such programs exist in the United States alone. Accelerated degree programs offer adult learners opportunity to complete a degree without interrupting work schedules and personal responsibilities (Collins, 2005; Saltiel & Russo, 2001; Wlodkowski, 2003a). Accelerated (also termed "intensive") courses are the core of accelerated programs, delivered with fewer instructional contact hours over a shorter duration, and typically scheduled as evening, weekend, or workplace classes (Scott and Conrad, 1991).

Many accelerated degree programs are cohort-based (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). Typically comprised of 12 to 20 adult students who enroll at one time and advance through a program, cohorts meet each week to complete a predefined sequence of courses leading to degree completion at the same time (Collins, 2005; Imel, 2002; Lawrence, 1997; Reynolds & Hebert, 1995; Spaid & Duff, 2009; Wlodkowski, 2003a). Although defined in several ways, "the essence is common membership, common goal, and structured meetings over time" (Collins, p. 35).

Furthermore, in many cohort-based accelerated degree programs, students participate within both a cohort and a subset learning team working together to complete projects and assignments throughout the program (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). It is this researcher's perspective that literature surrounding cohort characteristics applies equally, or more so, to subset learning teams responsible for delivering work representing a significant portion of the individual members' course grades. These teams hold the greatest opportunity for group congelation and "tight-knit, reliable, common purpose" (Drago-Severson, Helsing, Kegan, Popp, Broder, & Portnow, 2001, p. 15).

Cohort-based learning (CBL) richly evidences transformational learning potential (Barnett & Caffarella, 1992; Drago-Severson et al., 2001; Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994) and can be viewed through lenses of perspective transformation (Mezirow, 1978) and models of consciousness (Kegan, 1994). Awareness, relationships, and critical reflection are perspective transformation constructs strongly evidenced in CBL. Reviewing Kegan's (1994) models of consciousness in adult education practice, the National Center for the Study of Adult

Learning and Literacy (2001) stated: "Moving from one developmental stage to another is a [lifelong] progression of increasing complexity in an individual's cognitive, emotional, interpersonal, and intrapersonal capacities" (p. 6). To progress in their development, learners at any stage require level-appropriate support and challenge from their surrounding contexts (NCSALL, 2001). When strong positive cohort environments exist, students report greater motivation for academic work and improved academic performance (Basom, Yerkes, Norris, & Barnett, 1995; Reynolds & Hebert, 1995). CBL programs can support learning—and often-times transformational learning. However, the cohort structure does not ensure success. Imel (2002), Lawrence (1997), and Norris and Barnett (1994) all found certain learner characteristics, factors, or behaviors limit the effectiveness of cohorts.

Diversity

To better serve an increasingly diverse student population, much study has focused on understanding adult learning and development in relation to age (Aslanian, 2001; Craik, 2002; Fenimore, 1997; Levinson & Levinson, 1996; Schaie, 2002; Rogers, 2002); gender (Belenky, Clinchy, Goldberger, & Tarule, 1997; Bem, 1993; Brooks, 2002; Flannery & Hayes, 2002; Gilligan, 1982; Josselson, 1987; Tisdell, 1995), race and ethnicity (Cross, 1995; Helms, 1995; Johnson, 2001; Phinney, 1990), as well as sexual orientation (Brooks & Edwards, 1997; Cass, 1979; D'Augelli, 1994). Although this body of literature provides significant insight into the magnitude of interrelated psychological, social, and contextual factors of adult learners, the "diversity of the individual brain is infinite" (Zull, 2002, p. 248). Wlodkowski (2008, p.44) stated: "We need to go further than statistics and generalizations about cultural groups to respond to cultural diversity; we need to see adults as individuals with complex identities, personal histories, and unique living contexts." Educators must be increasingly intentional about practices enhancing motivation to learn for all students (Ginsberg & Wlodkowski, 2009).

Enhancing Motivation to Learn

Motives arise from within the learner. Although facilitators cannot motivate learners directly (MacKeracher, 2004; Wlodkowski, 2008), the level of motivation learners bring into the classroom can be transformed, for better or worse, by what happens in the classroom (Davis, 1992). Ginsberg and Wlodkowski (2009) stated, "One may certainly influence the motivation of people, but it happens through understanding another's perspective and inviting or drawing forth

natural and culturally embedded sources of strength" (p. 31). Inherent in this statement is an acknowledgement that efforts must transcend predominant sociocultural perspectives for equitable benefit across increasingly diverse adult learner populations.

Modeled in the *Motivational Framework for Culturally Responsive Teaching* (Framework) (Wlodkowski & Ginsberg, 1995), educators and learning co-facilitators can equitably elicit intrinsic motivation for culturally diverse learners through four interrelated and reciprocal conditions experienced by the learner as an emotional state (Figure 1-1):

1. Inclusion: Norms and practices are woven together to create a learning environment in which learners and teachers feel respected and connected to one another.

2. Attitude: Norms and practices create a favorable disposition toward the learning experience through personal relevance and volition.

3. Meaning: Norms and practices create challenging and engaging learning experiences that include learners' perspectives and values.

4. Competence: Norms and practices help learners understand how they are effectively learning something they value and of authentic value to their community.
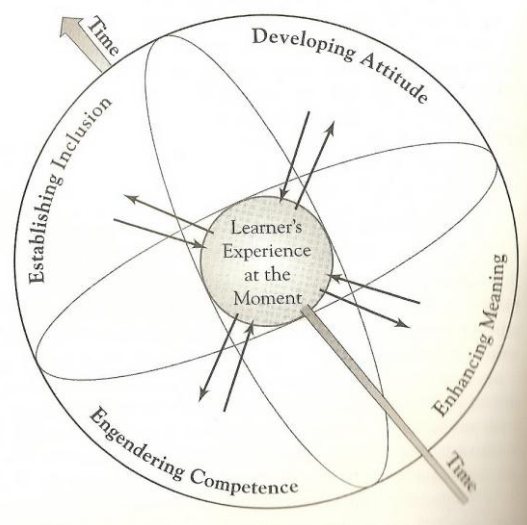
Figure 1-1 The Motivational Framework for Culturally Responsive Teaching
(Wlodkowski & Ginsberg, 1995, p. 34). Reproduced with permission.

Problem Statement

Substantial literature affirms learning occurs when students are intrinsically motivated to do so (Ginsberg & Wlodkowski, 2009; Goleman, 1995; Taylor, 2001; Wlodkowski, 2008. Previous literature reported on Framework conditions in CBL classrooms (Wlodkowski & Westover, 1999; Wlodkowski, Gonzales, & Mauldin, 2002; Wlodkowski & Stiller, 2005), but did not (a) comprehensively examine each condition within CBL programs comprised of both classroom and out-of-classroom learning environments or (b) measure whether differences existed across demographic segments.

Purpose Statement

The purpose of this study was to (a) assess and benchmark current levels of conditions eliciting intrinsic motivation to learn in both CBL classroom and out-of-classroom team learning environments, (b) identify differences in measures across demographic categories, (c) identify correlations between measures of conditions and learner-perceived overall level of current learning, and (d) collect specific examples of experiences deemed positively or negatively impacting motivation to learn.

Research Questions

Research Question One – Classroom

Does current level of learner-perceived motivational conditions in *classroom* environments differ across demographic categories?

> Research hypothesis: The researcher expected a significant difference in the
> dependent variable (*level of classroom conditions eliciting intrinsic motivation to*
> *learn*) across independent variable (*age, gender, race, and degree-level*) categories.
>
> 1. Ho1: There is no significant difference in dependent variable *level of classroom*
>   *conditions eliciting intrinsic motivation to learn* across *age*.
> 2. Ho2: There is no significant difference in dependent variable *level of classroom*
>   *conditions eliciting intrinsic motivation to learn* across *gender*.
> 3. Ho3: There is no significant difference in dependent variable *level of classroom*
>   *conditions eliciting intrinsic motivation to learn* across *race/ethnicity*.

4. Ho4: There is no significant difference in dependent variable *level of classroom conditions eliciting intrinsic motivation to learn* across *degree-level*.

Research Question Two – Out-of-Classroom

Does current level of learner-perceived motivational conditions in *out-of-classroom* team learning environments differ across demographic categories?

Research hypothesis: The researcher expected a difference in the dependent variable (*level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn*) across independent variable (*age, gender, race, and degree-level*) categories. Research question two null hypotheses follow:

1. Ho1: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *age*.

2. Ho2: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *gender*.

3. Ho3: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *race/ethnicity*.

4. Ho4: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *degree-level*.

Research Question Three – Condition Correlation with Current Learning

Does level of *classroom* or *out-of-classroom* team learning conditions better correlate with learner-perceived level of current learning?

Research hypothesis: The researcher expected level of *out-of-classroom* team learning conditions, rather than *classroom* conditions, to more closely correlate with learner-perceived level of current learning.

(Ho1): Correlation between level of *out-of-classroom* team learning conditions and learner-perceived level of current learning is less than or equal to correlation between level of *classroom* conditions and learner-perceived overall level of current learning.

Research Question Four – Exploration of Learner Experiences

The final research question was qualitative in nature and asked what experiences learners recall as positively or negatively impacting motivation to learn in either classroom or out-of-classroom learning environments.

Methodology

Setting for the Study

The study was conducted at multiple campuses of one Midwest University (University). Accredited by the North Central Association of Colleges and Universities, and significantly experienced in offering CBL accelerated degree programs, the University includes one school (School) serving adult students seeking professional and graduate degrees. The School offers associates, bachelors, and masters-level degree programs at five satellite campuses situated within three different Midwestern urban areas, and online. To best align with existing cohort-based accelerated degree program literature, this study did not explore online cohorts.

At each location, students within a cohort progress through a designated course sequence until degree completion. Within each cohort, an average of four students comprises a learning team. Courses at the University are primarily facilitated by adjunct instructors who are professionals in their respective areas, and instructor selection occurs through an interview and lecture demonstration process designed to identify facilitation ability, engagement strategies, and critical reflection modeling.

Cohort students begin their degree program with an orientation course including learning team formation and creation of a team constitution. Informing students about learning team benefits and purposes occurs through topics such as: building self-confidence through decision-making and problem-solving ability; learning to work with others under pressure; learning to lead, and to follow others; achieving higher-level quality and performance in course deliverables; sharing teaching and learning responsibilities; developing interpersonal skills; learning to work collaboratively; and developing lasting relationships with peers. All cohorts participate in weekly four-hour instructor-led classroom sessions, course durations range between five and eight weeks depending upon the curriculum, and all learning teams meet outside of class a minimum of three hours per week. Learning team meetings include team discussion, planning, and efforts to assist one another in learning and completing team assignments.

<center>*Population*</center>

The population was comprised of 754 students enrolled in on-ground CBL programs and included 47% male and 53% female students. The majority of students (78%) were between the ages of 26 to 45, nearly 8% 21 to 25, and 14% 45 to 62. Nearly 72% of the population self-identified as White/Caucasian, 12% Black/African American, 2% Hispanic/Chicano/Latino, 2% Asian/Pacific Islander, 2% American Indian/Alaskan Native, 2% "two or more races," and 9% other or unspecified.

Table 1-1 University Enrollment by Degree-Level and Location

Degree-Level	Area 1 (1 location)	Area 2 (1 location)	Area 3 Location 1	Area 3 Location 2	Area 3 Location 3	Total
Associates	33	43	69	14	19	178
Bachelors	52	52	126	0	0	230
Masters	37	46	210	31	22	346
Total	122	141	405	45	41	754

<center>*Sampling*</center>

The sampling frame comprised all cohorts enrolled in the School at the time of study, wherein the sample unit was a student enrolled in any selected cohort. Surveys were administered to 137 (91.3%) of 150 students enrolled within 13 randomly selected cohorts. In an effort to mitigate random sampling error, the study employed a multi-stratification sampling method (Figure 1-2).

Firstly, random sampling error is reduced when stratified groups are homogeneous within and heterogeneous between groups (Alreck & Settle, 1995; Krathwohl, 2004; Zikmund, 1997). Although unknown prior to study results, the researcher believed respondents in higher level degree programs, with greater CBL experience, would likely perceive levels of conditions more similarly (homogenously) within their group and more differently (heterogeneously) than those in lower level degree groups. For this reason, the sampling frame was stratified by degree-level.

Secondly, generalizing power (Krathwohl, 2004; Zikmund, 1997) is increased through representativeness across multiple-locations. Because the number of programs underway at any given date differed across geographic location, it was likely that sampling without a second level of stratification would result in representativeness bias—more course selections from one

<center>10</center>

location than others. Therefore, the degree-level stratified samples were additionally stratified by geographic location.
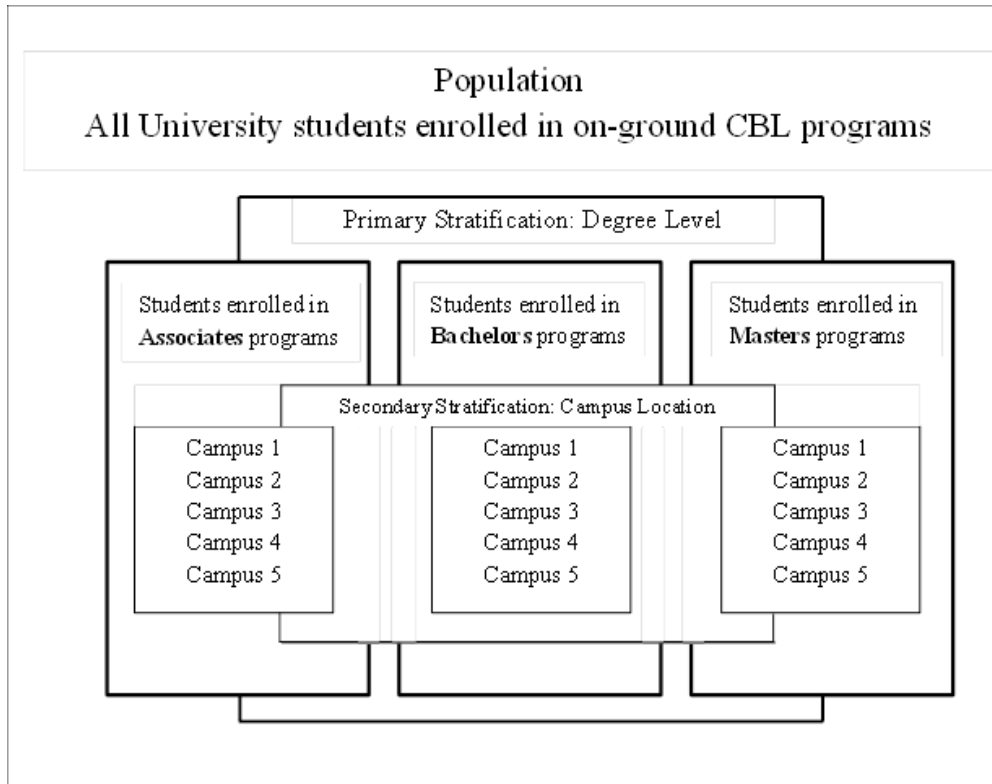
Figure 1-2 Multi-Stratification Model

Instrumentation

Created through rigorous attention to design conventions (Dillman, 2000), expert review, and pilot study analysis, the *Motivational Conditions in Learning Instrument*[©] (MCLI[©]) (Appendix D) contained two Likert scales, each comprised of subscales operationalizing each of the Framework's four interrelated conditions (inclusion, attitude, meaning, competence), and measuring the dependent variable *level of conditions eliciting intrinsic motivation to learn*. The first scale measured classroom conditions whereas the second measured out-of-classroom team learning conditions. An *overall learning* statement facilitated exploration of correlations between each scale and learner perceived overall learning. The concluding open-ended question facilitates insight into experiences impacting motivation to learn.

Pilot Study

Administered in-person during selected cohorts' respective class meetings during March, 2012, the pilot study provided (a) insight into respondent perceptions of survey design and (b) validity and reliability test data. Cohort selection resulted in 37 responses which met a reasonable pretest N of 25 to 75 (Converse & Pressor, 1986):

Table 1-2 Pilot Study Response Results

Degree-Level	Location	Number of Responses
Associates	Area 1	9
Bachelors	Area 1	9
Masters	Area 3, Location 1	19
Total		37

Additionally, five associates, six bachelors and five masters-level students agreed to participate in a response process study which is summarized in Appendix E and expounded upon in Chapter Three.

Validity

Validity, the degree to which evidence and theory support the interpretation of test scores entailed by proposed uses of tests (Ary, Jacobs, Razavieh, & Sorensen, 2006), was demonstrated through content-based and construct-related evidence. As detailed in Chapter Three, content-based evidence occurred through expert review whereas construct-related evidence occurred through internal structure and response process analysis.

Reliability

Reliability, the degree of consistency with which an instrument measures whatever it was intended to measure, was demonstrated through statistical analysis of the pilot study and confirmed in the final study data. Pilot study (n=37) coefficients of .861 and .941 provided strong evidence of reliability within both the classroom and out-of-classroom scales, respectively. Likewise, final study (n=136; one response omitted) analysis resulted in coefficients of .874 and .936, respectively.

Data Collection Procedures

Administered to participants while in their respective classrooms, non-response error was isolated to either (a) student absence during survey administration or (b) non-participation choice, in part or entirety. Additionally, social exchange theory (Dillman, 2000) was integrated into the survey administration plan to mitigate non-participation error. Complete details are provided in Chapter Three.

Data Analysis Procedures

Quantitative analysis was facilitated through the use of Microsoft Excel™ and Statistical Package for the Social Sciences (SPSS™) software. Descriptive statistics were computed for the sample as a whole, as well as demographic subsamples, thus allowing more comprehensive comparison of sample characteristics with those of the population. Inferential statistics were employed to (a) identify scale (classroom and out-of-classroom) and subscale (inclusion, attitude, meaning, and competence) differences across independent variables (age, gender, race, degree-level) and (b) relationships between each scale and learner-perceived overall level of learning.

Analysis of variance (ANOVA) was initially chosen as the technique for examining differences across independent categories. However, ANOVA was precluded by non-conforming conditions. Although two of four conditions—random sampling and independent observations—were met through methodology design. The third and fourth conditions—assumptions of population normality and homogeneity of variance—were not substantiated. Kruskal-Wallis non-parametric test procedures were therefore used. Similarly, the non-parametric Spearman's Rho was used to determine strength and direction of relationships between level of current learning and each of the scales and subscales.

Protection of Human Rights

The research was conducted in accordance with the policies of the Institutional Review Board (IRB) of Kansas State University. Throughout the planning and implementation of this study, and as required by Kansas State University Research Compliance Office (URCO), extensive care was exercised to protect rights and privacy of study participants. To assure collection procedure consistency and participant understanding of study purpose and scope, the survey administrator adhered to an administrator's pre-survey script (Appendix G).

Definitions of Terms

Accelerated Learning– Any delivery format structured for program completion in less contact time than traditional programs (Wlodkowski, 2003a).

Accelerated Degree Program– A structured program in an accelerated learning format (Wlodkowski, 2003a).

Adult Learner– Anyone "engaged in some form of instruction or educational activity to acquire the knowledge, information, and skills necessary to succeed in the workforce, learn basic skills, earn credentials, or otherwise enrich their lives" (Lumina Foundation, 2009).

Adult Learner Assumptions– (Knowles, 1980):

- As a person matures, his or her self-concept evolves from dependent personality toward self-directedness
- The readiness of an adult to learn is closely related to the developmental tasks of his or her social role
- There is a time perspective as people mature—from future application of knowledge to immediacy of application. Thus an adult is more problem centered than subject centered in learning
- Adults accumulate a growing reservoir of experience which is a rich resource for learning
- Adults are motivated to learn by internal factors rather than external ones

Cohort– A learning group typically comprised of 12 to 20 adult students who enroll at one time and advance through a program, meeting each week to complete a predefined sequence of courses leading to degree completion at the same time (Collins, 2005).

Cohort-based Learning– Learning in group forms demonstrating "tight-knit, reliable, common-purpose" (Drago-Severson, et al., 2001, p. 15). This study viewed cohort-based learning as occurring in both cohort groups and in subset learning teams.

Critical Reflection– A self-examination of assumptions and beliefs from which an individual has based meaning from experience. This examination then triggers a revision of "specific assumptions about oneself and others until the very structure of assumptions becomes transformed" (Mezirow, 1981, p. 8)

Generalizing Power– The extent to which a study's results can be generalized across a variety of persons, places, times, measures, or procedures (Krathwohl, 2004).

Likert Scale– A popular attitudinal measurement scale, named for its creator, wherein statements are made to which respondents indicate level of agreement or disagreement. The scale is popular because of its flexibility, economy, and ease of composition (Alreck & Settle, 1995).

Motivation– An internal state or condition that serves to activate or energize behavior and give it direction—a unifying link between one or more biological, cognitive, social, or emotional stimuli and behavior (Kleinginna & Kleinginna, 1981).

Motivational Conditions in Learning Instrument$^{©}$ (MCLI$^{©}$) – This study's survey instrument created to (a) measure and benchmark current levels of conditions eliciting intrinsic motivation to learn in both CBL classroom and out-of-classroom team learning environments, (b) explore differences between those measures, (c) explore correlations between levels of conditions and learner-perceived level of current learning, and (d) collect specific examples of experiences deemed positively or negatively impacting motivation to learn.

Motivational Framework for Culturally Responsive Teaching– A framework of four essential conditions necessary for eliciting intrinsic motivation for all students in classroom environments: (1) establishing inclusion through norms and practices woven together and creating a learning environment wherein learners and teachers feel respected and connected to one another, (2) developing attitudinal norms and practices creating a favorable disposition toward the learning experience through personal relevance and volition, (3) enhancing meaning through norms and practices creating challenging and engaging learning experiences that include learners' perspectives and values; and (4) engendering competence through norms and practices helping learners understand how effectively they are learning something they value and perceived as authentically valuable to their community (Wlodkowski & Ginsberg, 1995).

Nontraditional Student– Students identified as exhibiting one or more of seven characteristics: (a) delayed enrollment in postsecondary education, (b) part time attendance, (c) financially independent of parents, (d) full time work while enrolled, (e) dependents other than a spouse, (f) single parent, and (g) lack a traditionally attained high school diploma (National Center for Education Statistics, 1996).

Orders of Consciousness– Robert Kegan's adult development theory explaining the way humans grow and change over the course of their adult lives. Proposed are five distinct stages of meaning making wherein what was once subject becomes object. Transformative learning occurs

when the individual changes not only what he or she knows, but the way he or she knows (Kegan, 1994).

Perspective Transformation– A process "involving a structural change in the way we see ourselves and our relationships. If the culture permits, we move toward perspectives which are more inclusive, discriminating, and integrative of experience. We move away from uncritical, organic relationships toward contractual relationships with others, institutions, and society" (Mezirow, 1978, p. 101).

Reference Group Effect– The confounding role of context in comparison of mean questionnaire responses across different groups, in particular (but not exclusively) across different cultures (Heine, Lehman, Peng, & Greenholtz, 2002).

Sample Unit– The smallest entity that will provide one response (Alreck & Settle, 1995).

Sampling Frame– A list or set of directions identifying all sample units in the population (Alreck & Settle, 1995).

Social Exchange Theory– A theory of human behavior used to explain the development and continuation of human interaction. The theory contends individual actions are motivated by the expected returned actions. Three elements predict a particular action: rewards, costs, and trust (Dillman, 2000).

SPSS– A widely popular statistical software product of the IBM Corporation. SPSS is an acronym for Statistical Package for Social Sciences.

Stratified Sampling– A sampling method wherein the population is first subdivided into two or more parts to reduce the possibility a sample will be unrepresentative of the population (Huck, 2004).

Transformational Learning– Learning that results in "dramatic, fundamental change in the way we see ourselves and the world in which we live" (Merriam & Caffarella, 1999, p. 318).

Limitations and Assumptions

Limitations of the study were:

1. Traditionally underrepresented populations (African American, Hispanic, Asian, Indigenous Americans, and socioeconomic disadvantaged) were also under-represented in the study.

2. The reference group effect potentially impacted the study. The reference group effect is the confounding role of context in comparison of mean questionnaire responses across different groups; it is inherent in subjective Likert scales and may conceal differences on a dimension across groups (Heine, Lehman, Peng, & Greenholtz, 2002).

Assumptions of the study were:

1. In an ideal learning environment all learners, regardless of diverse characteristics, should report similar levels of conditions eliciting intrinsic motivation to learn.
2. Respondents accurately and truthfully indicate demographic information.
3. Respondents accurately and truthfully assign levels of agreement or disagreement with Likert statements.
4. Survey responses are independent of one another.

Significance of Study

Given both (a) the crucial impact of intrinsic motivation on learning and (2) the level of out-of-classroom learning expected to occur in many cohort-based programs, an instrument facilitating quantitative assessment of each condition within both classroom and out-of-classroom conditions is essential to considerations of equitable learning opportunity. It is anticipated the study will generate use of the instrument in assessing conditions and promote continuous improvement, by both classroom instructors and out-of-classroom co-facilitators.

Summary

This study, grounded in United States education philosophy and adult learning and motivation theory, quantitatively measured levels of conditions eliciting intrinsic motivation to learn in both classroom and out-of-classroom environments, identified differences in measures across demographic categories, and identified relationships between measures of condition and learner-perceived level of overall learning. Finally, the study collected specific examples of learner experiences contributing to, or distracting from, motivation to learn.

Through the creation of the *Motivational Conditions in Learning Instrument*[©] (MCLI[©]), this study produced a valid and reliable instrument for assessing learner-perceived levels of

conditions eliciting intrinsic motivation to learn in both classroom and out-of-classroom learning environments. Benefiting institutions of higher learning, use of the MCLI$^{©}$ can provide a quantitative and comprehensive assessment of the level of conditions present in learning environments when documenting the state of, or improvements in, equitable conditions. Moreover, because the instrument is aligned with Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching,* educators and co-facilitators have access to relevant and immediately applicable strategies for enhancing adult motivation to learn through any condition (inclusion, attitude, meaning, and/or competence) assessed as benefiting from improvement.

CHAPTER 2 - Review of Literature

Introduction

This study assessed and investigated motivational conditions experienced by diverse adult learners in cohort-based programs comprising both classroom and out-of-classroom team learning. In 2007, the National Center for Education Statistics reported that five percent of the United States population, aged 16 or older, participated in adult part-time degree or diploma programs, and Wlodkowski (2003) estimated 25 percent or more of all adult degree-seeking students would be enrolled in accelerated programs by 2013. Many accelerated degree programs are cohort-based (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). And, in many cohort-based accelerated degree programs, students participate within both a cohort and subset learning team (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). It is this reviewer's perspective that literature surrounding cohort characteristics applies equally, or more so, to subset learning teams responsible for delivering work representing a significant portion of the individual members' course grades.

The cohort's key contribution to student success lies in learners taking responsibility for creating and enhancing learning experiences for themselves as well as other cohort members (Imel, 2002). From this perspective, cohort and subset learning team members are learning co-facilitators that influence motivation "through understanding another's perspective and inviting or drawing forth natural and culturally embedded sources of strength" (Ginsberg & Wlodkowski, 2009, p. 31).

Founded upon well-researched ideas and findings, and considerably supported by neuroscientific principles and research, Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching* (Framework) identified conditions necessary for eliciting intrinsic motivation for all learners. This study explored the Framework's application to cohort-based learning (CBL) wherein cohort and subset learning teams are expected to co-facilitate and enhance learning for themselves as well as other cohort and team members in both their classroom and out-of-classroom experiences.

This chapter begins with a literature review of adult learner assumptions and then proceeds with reviews of accelerated degree programs, cohort-based learning, and adult learner diversity. Finally, adult motivation to learn is reviewed.

Adult Learners

Since Malcolm Knowles' (1968) introduction of the term andragogy more than 40 years ago, and founded upon works from seminal scholars such as Dewey (1938), Lindeman (1961), Freire (1970, 1973), and Houle (1988), a growing body of adult learning and development literature continues to develop (Brookfield, 1986, 1987, 1995; Kasworm, 2003a; Kasworm, Polson, & Fishback, 2002; Kegan, 1994; Knowles, 1980, 1989, 1990; Knowles & Associates, 1984; Kolb, 1984; Merriam, Caffarella, & Baumgartner, 2007; Mezirow, 1978, 1981, 1991, 2000). As proposed by Knowles (1980), predominant assumptions of adult learning include self-direction, participation corresponding with social role identity, interest in immediate application, meaning making from an ever-increasing reservoir of experiences and internal motivation.

Self-Direction

Adults have a deep need to be generally self-directing (Knowles, 1980; Lindeman, 1961). As applied to adult educational endeavors, self-directedness involves setting self-identified goals, locating appropriate resources, choosing learning methods, and self-evaluating progress (Lindeman, 1961). Predominate discussions of self-directedness are readiness and state of autonomy. According to Guglielmino (1977), the following psychological qualities identify self-directed readiness.

1. Initiative, independence, and persistence in learning
2. Acceptance of responsibility for one's own learning
3. Strong ability to learn independently
4. Enjoyment of learning
5. Tendency to be goal oriented
6. Tendency to view problems as challenges rather than obstacles

Similarly, Chene (1983) identified three characteristics of the autonomous learner: independence, ability to make choices and critical judgments, and capacity to articulate norms and limits of a learning society. Important to considerations of cultural diversity and CBL, self- identity and

knowledge are socially constructed and may impede adult learners' capacity for, or willingness to exhibit, self-directedness and autonomy (Candy, 1991; Tennant & Pogson, 1995; Boucouvalas, 1988).

Participation

Knowles (1980) asserted that as a person matures his readiness to learn becomes oriented increasingly to the developmental tasks of his social roles. Adult participation in learning has garnered much study, evolving from social role explanations into more complex psychosocial perspectives of participation (Boshier, 1973; Cross, 1981; Miller, 1967; Rubenson, 1977). This shift in perspective can be contributed in part to criticisms of the social roles focus. Brookfield (1986) cautioned that focusing on social roles leads to a technological or product oriented understanding of participation rather than a more humanistic and comprehensive understanding wherein learning may occur due to sheer intrigue and awe. Humphries (1988) presented another concern: Focusing on participation from a social roles perspective gives legitimacy to existing social relationships and may prolong oppressive schemas.

Immediate Application

Knowles (1980) stated as a person matures his or her time perspective changes from one of future application of knowledge to immediacy of application; and, consequentially, learning orientation shifts from subject-centeredness to problem-centeredness. The problem-centered orientation is substantiated through a culmination of national, regional, and local adult learning participation studies (Merriam, Caffarella, & Baumgartner, 2007). These studies strongly suggest adults participate in formal learning for multiple reasons, with job-related motives most often cited. Despite empirical evidence, the problem-centered orientation has received considerable criticism. Tennant (1988) argued as adults mature they are better able to postpone transfer of learning, and Brookfield (1986) argued the focus on competence and on problem-centeredness undervalues the large amount of learning undertaken by adults for its innate fascination. He believed much adult learning is unrelated to life tasks, and instead is a means by which adults define themselves. It is important to note Brookfield's (1986) view of adult learning encompassed more informal learning than did the aforementioned studies.

Meaning Making from Experiences

"The resource of highest value in adult education is the learner's experience" (Lindeman, 1961). Building upon the work of Dewey (1938), Freire (1970, 1973), Habermas (1972), and Piaget (1972), among others, many researchers and theorists have studied the impact of experience on adult learning and development (Brookfield, 1986; Kegan, 1994; Knowles, 1980; Kolb, 1984; Lindeman, 1961; Mezirow 1978, 1981, 1991, 2000). Perspective Transformation (Mezirow, 1978, 1981, 2000) and Models of Consciousness (Kegan, 1994) are two theories most widely discussed.

Perspective Transformation

"Becoming aware that one is caught in one's own history and reliving it" is fundamental to adult development, and is learning "most uniquely adult" (Mezirow, 1978, p. 100). Often triggered by a disorienting dilemma, such as a life crises or major transition, awareness leads to a perspective transformation process involving a structural change in the way we see ourselves and our relationships.

> If the culture permits, we move toward perspectives which are more inclusive, discriminating, and integrative of experience. We move away from uncritical, organic relationships toward contractual relationships with others, institutions and society. Perspective transformation reformulates the criteria for valuing and for taking action. Behavior change is often a function of such transformation. (p. 100)

From this statement, three constructs deserve elaboration. The first is process. Transformation does not typically occur in an epiphany; rather, it occurs through a learning process evolving with a series of individual considerations. The process begins with alienation from social roles followed by a stage of reframing where individuals evaluate previously held, and evolve new, perceptions of reality and his or her position in that reality. Within reframing, individuals must reassess and reassign values in judgments. In the final stage, individuals participate in society from a new perspective born of transformed identity, roles, and societal relation.

The second important construct is "relationships." Perspective transformation occurs within the context of relationships and relative power between self and others. This construct is

explored in many adult education areas of study, e.g., self-efficacy (Bandura, 1997), power (Cervero & Wilson, 1994; Kilgore, 2001; Pietrykowski, 1996), and hegemonic awareness (Brookfield, 2005; Gramsci, 1971; Hooks, 1990).

The third important construct, critical reflection, has roots dating back to Socrates' belief that there is a type of self-reflection that can free us from the tyranny and bondage of false opinion (Bernstein, 1985). It is a process of critically questioning assumptions. Typically, the catalyst for self-reflection and critical analysis of assumed ideologies is a "disorienting dilemma"—a life-event or situation wherein one can only develop understanding by examining perceptions that previously distorted views of self, event, and self in relation to event (Mezirow, 1978).

Models of Consciousness

Kegan's *Model of Consciousness* (1994) explained adult meaning making through a five-orders model of consciousness. Whereas Mezirow framed transformation within the evolution of perspectives, Kegan framed transformation within evolution of consciousness—an increasing ability to organize meaning. Key to understanding the orders, Kegan identified features relating to all principles within the orders:

- The principles should be construed not only as how one thinks, but also how one constructs experiences—including thoughts, feelings, and social-relating.
- The principles discuss how one *organizes* his or her thinking, feeling, and social-relating—*not the content* of his or her thinking, feeling, and social-relating.
- The principles have a deep inner logic consisting of a subject-object relationship. Knowing or organizing elements with which one is "identified as, tied to, fused with, or embedded in" (p. 32), are subject, whereas knowing or organizing elements one can "reflect on, handle, look at, be responsible for, relate to each other, take control of, internalize, assimilate, or otherwise operate upon are subject" (p. 32).

Successive principles incorporate previous order principles as what was subject becomes object to the next principle. Each qualitative move takes a whole mental structure that had been experienced as subject and shifts it so it becomes seen as object (Debold, 2002).

In most instances, adults enter their young adult years at the third order of consciousness wherein meaning making is constructed with an ability to subordinate the previous order's way of knowing to an interaction between them. At this order, the individual has an ability to think abstractly about ideals and values, and feelings are a matter of inner states and self-reflective emotion (Kegan, 1994, p. 29). Furthermore, the individual is capable of loyalty toward a community of people or ideas larger than self. In other words, the self becomes part of a tribe and the tribe a part of self.

Most discussed in transformational adult learning, Kegan's fourth order occurs when individuals live in an increasingly complex world wherein he or she must exist in various communities (tribes). As example, the epistemological requirements of work vary from those of partnering and parenting. This existence requires adults to become self-authoring. "We are not just made up by or written on by a culture, but we ourselves become the writer of a reality that we then are faithful to" (Debold, 2002, para.35). This transformation is characterized by personal empowerment.

The fifth order, characterized as self-transforming, discussed less often, and rarely achieved, recognizes ways of making meaning are all partial. Thereafter, one begins to construct meaning with an acceptance of contradictions and opposites. One begins to see the life project as not about defending form of self but in gaining ability to transform self. "This means that the self is more about movement through different forms of consciousness than about defending and identifying with any one form" (Debold, 2002, para.42).

Internally Motivated

Knowles' (1980) stated adult learners are internally motivated. Within internal motivation literature, two distinct categories of discussion exist. The first focuses on *motivation to participate* whereas the second focuses on *motivation to learn*. In regard to motivation to participate, debate is founded upon the fact that much adult learning occurs either as a result of workplace learning and continuing professional education requirements or as a result of socially mandated learning such as learning to drive and job preparation (Merriam, Caffarella, & Baumgartner, 2007). Responding to this debate, Boshier (1973), Miller (1967), and Rubenson (1977) examined internal motivation through the perspective of an intersection between personal

needs and social factors, whereas Henry and Basile (1994) examined the intersection of personal needs with deterrents to participation.

Building upon the work of Boshier (1973), Miller (1967), and Rubenson (1977), Cross' (1981) chain of response model was the first to incorporate life events and transitions in explaining participation (Merriam, Caffarella, & Baumgartner, 2007). In Aslanian and Brickell's 1980 study, life events were described by 83 percent of learners as the reason for their learning efforts. Cross' (1981) model begins with individual psychological factors and ends with external factors (Figure 2-1). Within the chain, each stage influences the next. The more positive learners' experiences at each stage, the more likely learners are to reach the last stage. Cross (1981) cautioned that the model is more reciprocal in nature than the seven steps suggest. For example, participation in adult education (G) can affect one's attitudes about education (B) and about self as learner (A).
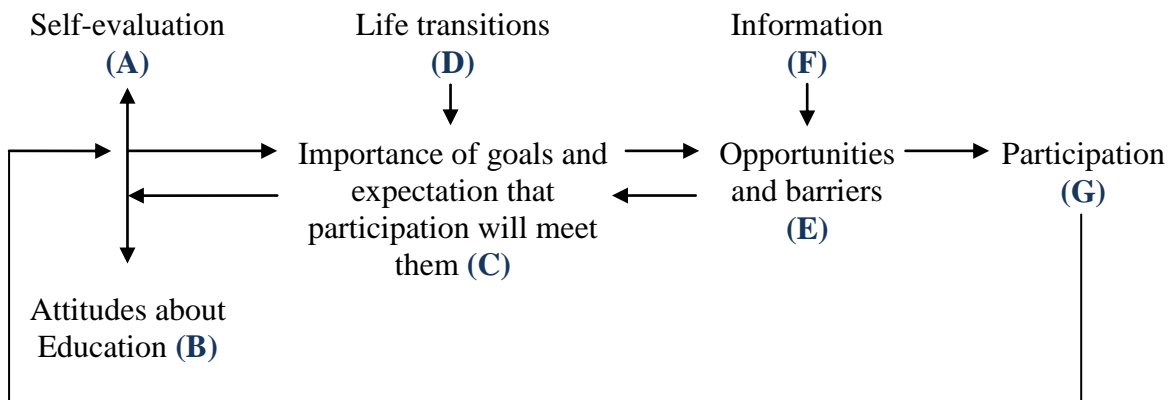
Figure 2-1 Cross' Chain of Response Model (Cross, 1981, p. 124)

Criticism of the model stems from a North American egocentric concept of self. As explained by Geertz (1973), understanding of self is developed within sociocultural frames, and Western concepts of self are seen as peculiar in the context of other world cultures Contrasting Western views of autonomous individuality, Shweder and Bourne (1982) explained that self-concepts within more sociocentric cultures are developed within an interdependence frame wherein regulating and being regulated are norms.

Motivation to learn is the second discussion within the internal motivation literature. This literature explores adult motivation in the *action of learning* rather than in the *choice of*

participation. Learning occurs when one is intrinsically motivated to do so (Christensen, Horn, & Johnson, 2008; Ginsberg & Wlodkowski, 2009; Ryan & Deci, 2002; Wlodkowski, 2008; Zull, 2002). In Walberg and Uguroglu's (1980) benchmark analysis of 232 correlations of motivation and academic learning in first through twelfth grade students, 98 percent of correlations between motivation and academic achievement were positive. Ginsberg and Wlodkowski (2009) stated it is reasonable, given the robust evidence for students as old as 18, to assume Walberg & Uguroglu's (1980) findings apply to adult learners. To further explore adult motivation to learn, the following discussion considers the biological, cognitive, emotional, and social stimuli of motivation.

In consideration of the combination of biological and cognitive stimuli, Wlodkowski (2008) explained the neurological processes when motivated to learn. At the most basic level, when one learns something, connections are made between the brain's neurons. Through cognitive practice and repetition, connections are strengthened. "It seems that every fact we know, every idea we understand, and every action we take has the form of a network of neurons in our brain" (Zull, 2002, p. 99). This basic neurological understanding supports the adult learning assumption of meaning making from experience. "When adults learn, they build upon or modify [neuron] networks created through previous learning and experiences" (Wlodkowski, 2008, p. 11).

The importance of emotion in motivation can be examined in combination with biological and cognitive factors. Prior to cognitive consideration, emotion largely dictates to what human brains will attend. Events accompanied by feelings receive preferential processing in the brain (Christianson, 1992). Emotions also influence what is remembered (Hill, 2001; LeDoux, 1996; Wlodkowski, 2008; Zull, 2002), and may be due to increased levels of hormones occurring during heightened emotional states (Wlodkowski, 2008).

The social stimulus of motivation is often triggered by emotion. As explained by Wlodkowski (2008), emotions trigger task engagement but response to engagement may vary widely across cultures:

> One person working at a task feels frustrated and stops; a second person working at the task feels joy and continues; and yet another person, with a different set of cultural beliefs, feels frustrated but continues with increased determination. The response to the task—frustration, joy, or determination—may differ across cultures because cultures

differ in their definitions of novelty, hazard, opportunity, and gratification and in their

definitions of appropriate responses. (p. 21)

It is important to consider how the social aspect may be less relevant as learners advance in perspective transformation (Mezirow, 1978) or conscientiousness (Kegan, 1994). As learners are better able to examine their sociocultural definitions, they will likely become better able to redefine their responses to task engagement.

Accelerated Degree Programs

The Commission for Accelerated Programs defines accelerated learning in higher education as credit-bearing programs "reduced in both duration and contact hours as compared to the traditional semester degree program" (2010, para.1). As many educators predicted significant future growth in the number of accelerated programs (Daniel, 2000; Scott, 1996; Singh & Martin, 2004; Wlodkowski, 2003a), controversy surrounded the practice. Wolfe (1998) claimed schools offering accelerated programs did so at the expense of educational substance and rigor. Similarly, Shafer (as cited in Wlodkowski, 2003a) reported compromised breadth and depth of understanding when learning was crammed and poorly developed. Brookfield (2003) opposed the commoditization of learning wherein a degree is the product and students the customers. Finally, Wlodkowski and Westover (1999) stated many conventional academians are concerned with the practice of employing part time faculty rather than professional tenure-track educators.

In response to concerns surrounding accelerated programs and intensive courses, many studies examined learning differences between accelerated and conventional format courses. Doyle and colleagues (as cited in Scott, 1996) found students in intensive format business administration courses scored slightly higher than students in the same courses delivered in traditional format. Similarly, Waechter (as cited in Daniel, 2000) studied students in earth science courses and found students in intensive format courses scored equal to students in traditional format courses in evaluations immediately following the course, three months later, and four and a half months later. Finally, Van Scyoc and Gleason (1993) compared students in microeconomic courses. Students in three week courses performed better on achievement tests than those in traditional format courses. Specific to adult program courses, Wlodkowski and Westover (1999) conducted a study spanning two years, three private universities, and six

undergraduate courses wherein the same instructors, texts, tests, and very similar instructional methods were employed. Differences in student learning between intensive format courses and traditional format courses were non-discernable.

From a program rather than course perspective, Wlodkowski, Mauldin, and Gahn (2001) examined differences in student achievement between accelerated and traditional programs. The researchers examined differences in persistence and degree attainment by adult students enrolled in Regis University's accelerated programs and those enrolled in the University of Missouri-Kansas City's traditional programs. Graduation rates after three years were higher for accelerated (26 percent) than traditional (18 percent) program students.

In response to concerns regarding courses led by part time faculty, Donaldson (2001) reported adult students spoke highly of instructors who were passionate about their subject, motivated students, rewarded efforts, and had high expectations (p. 10). Students deemed instructors less effective when they assumed students were homogenous, did not demonstrate an understanding of differing learning styles, and "expected adults to learn irrelevant information" (p. 10). Scott (2003) reported students preferred intensive to traditional format courses when specific attributes were present. Identified attributes were grouped into four categories (a) instructor, (b) teaching methods, (c) evaluation, and (d) classroom environment.

Instructor attributes included enthusiasm for the subject, proficient ability to communicate both knowledge and experience, willingness to learn from and consult with students, and a demonstrated student orientation. Teaching method attributes included active learning, classroom interaction and discussion, experiential and applied learning, and limited lectures. Furthermore, students preferred content depth over breadth. In regard to evaluation attributes, students believed intensive courses required assignment and exam formats different from traditional-length courses (p. 34). Student recommendations included smaller assignments fitting the shorter time frame, assignments highly correlated with course objectives and requiring application of experience, the use of essay exams over objective exams; and the use of non-exam evaluations such as written papers, projects, and class presentations. In regard to classroom environment, students reported relationships, atmosphere, class size, and physical environment as the most important attributes (p. 33). Finally, students specifically expressed value in the opportunity to form deeper relationships.

Relationships were also noted as especially or most important in cohort-based accelerated programs (Brooks, 1998; Kasworm, 2003b; Imel, 2002; Lawrence, 1997; McCarthy, Trenga, & Weiner, 2005; Saltiel & Russo, 2001). Kasworm (2003b) reported students believed additional learning occurred through interactions with fellow students who were mutually focused on their work worlds, cohort-based classes and projects provided learning through shared perspectives and applications, and experiences within these relationships offered a sense of support (p. 20). Spaid and Duff (2009, p. 104) found cohorts often developed collaborative relationships lasting throughout the program and beyond.

Cohort-Based Learning

Humans exhibit a deep seated tendency to create groups (Gardner, 2007; Norris & Barnett, 1994). "The group has always been an important means for the accomplishment of human purposes. First in the family, then the clan, the tribe, the guild, the community, and state; groups have been used as instruments of government, work, fighting, worship, recreation, and education" (Knowles & Knowles, 1972, p. 16). In general, a group is a collection of people possessing: (a) definable membership, (b) sense of shared purpose, (c) group consciousness, (d) member interaction, (e) interdependence in satisfaction of needs, and, (f) ability to act in a unitary manner (Knowles and Knowles, 1972, p. 41). As documented in Table 2-1, CBL programs evidence these characteristic.

Primarily, an accelerated degree cohort is typically comprised of 12 to 20 adult students who enroll at one time and advance through a program, meeting each week to complete a predefined sequence of courses leading to degree completion at the same time (Collins, 2005; Imel, 2002; Lawrence, 1997; Reynolds & Hebert, 1995; Spaid & Duff, 2009; Wlodkowski, 2003a). Although defined in several ways, "the essence is common membership, common goal, and structured meetings over time" (Collins, p. 35).

Table 2-1 CBL Evidence of Group Characteristics

Group Characteristic	CBL Evidence of Characteristic
Definable membership (a)	Present through administration's separate identification of the cohort from other students and cohorts in the institution. When learning teams are formed within the cohort, members typically create a team name by which they are thereafter identified in the program.
Sense of shared purpose (b) and Ability to act in a unitary manner (f)	Inherent in the cohort's existence when substantial academic deliverables are required as a team effort (Kasworm, 2003b; Wenger, 1998).
Group consciousness (c)	Characterized by member identification with the group, a collective perception of unity, and conscious identification with each other. This attribute is evident in student remarks that participation in the cohort generates feelings of belonging and social bonding (Brooks, 1998; Lawrence, 1997; Reynolds & Hebert, 1995).
Member identification (d)	Characterized by members communicating with one another, influencing one another, and reacting to one another
Interdependence (e)	Relates to the need of one another's help to accomplish the purpose of the group. Interdependence "is considered the hallmark of a true group" (Norris & Barnett, 1994). Interdependence is evident in the cohort groups' reliance on, and fostering of, interactions that enhance learning for all members and resulting in the ability to meet required academic requirements (Basom, Yerkes, Norris, & Barnett 1995; Brooks, 1998; Lawrence, 1997; Saltiel & Russo, 2001).

In many accelerated adult degree programs, students participate within both a cohort group and a subset learning team working together to complete projects and assignments throughout the program (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). It is this reviewer's perspective that literature surrounding cohort group characteristics applies equally, or more so, to subset learning teams.

The dynamic nature of the group is also important to the cohort definition. Knowles and Knowles (1972) state:

> We can think of every group as having certain relatively static aspects—its name, constitutional structure, ultimate purpose, and other fixed characteristics. But it also has dynamic aspects—it is always moving, doing something, changing, becoming, interacting, and reacting. And the nature and direction of its movement is determined by forces being exerted on it from within itself and from outside. The interaction of these forces and their resultant effects on a given group constitute its dynamics. In this sense, group dynamics is to groups what personality dynamics is to individuals. It is a phenomenon that occurs naturally; nobody invents it. (p. 14)

The dynamic nature of CBL is evident in development that takes place both within groups and within learners individually (Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994). McCarthy, Trenga, and Weiner (2005) stated groups develop a culture important to the members' personal lives and critical to the educational environment within the group; Saltiel and Russo (2001) stated beyond culture, there is a soul or essence requiring a greater degree of commitment and cohesiveness; and Norris and Barnett (1994) that "individuals are interwoven into groups and groups become reflections of individuals.

Meaning Making in Cohort-Based Learning

Theories of transformational learning are among the works most widely discussed in support of the *meaning making from experience* adult learner assumption. CBL richly evidences transformational learning potential (Barnett & Caffarella, 1992; Drago-Severson et al., 2001; Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994) and can be viewed through lenses of perspective transformation (Mezirow, 1978) and models of consciousness (Kegan, 1994).

Awareness, relationships, and critical reflection concepts are strongly evidenced in CBL. The transformation process begins with an awareness of one's own presuppositions (Mezirow, 1978). Cohort-based participation allows learners to identify—to become aware of—presuppositions in response to experiences and presuppositions shared by other cohort members (Imel, 2002; Lawrence, 1997). When positive relationships develop within groups, as characterized by shared commitment, mutual respect, recognition of individual differences, and

appreciation of individual strengths; learners feel safe to express thoughts and feelings (Drago-Severson et al., 2001; Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994). This safe place provides a space for critical reflection ultimately providing "fertile ground for the cultivation of personal values" (Basom, Yerkes, Norris, & Barnett., 1995, p. 17) while learners develop new skills and clarify beliefs and ideas (Norris & Barnett, 1994).

Similar to Mezirow's perspective transformation (1978), Kegan (1974) spoke of adults developing their minds in a manner transforming epistemologies and liberating them from what was previously embedded. Whereas Mezirow framed transformation within the evolution of perspectives, Kegan framed transformation within evolution of consciousness—an increasing ability to organize meaning.

Reviewing models of consciousness in adult education practice, the National Center for the Study of Adult Learning and Literacy (2001) stated: "Moving from one developmental stage to another is a [lifelong] progression of increasing complexity in an individual's cognitive, emotional, interpersonal, and intrapersonal capacities" (p. 6). These levels of development are ways of knowing or meaning systems (Drago-Severson et al., 2001). To progress in their development, learners at any stage require level-appropriate support and challenge from their surrounding contexts (NCSALL, 2001). Kegan (1994) termed these contexts "holding environments." CBL demonstrates holding environment characteristics serving three functions (Drago-Severson et al., 2001):

> First, it "holds well," meaning that it meets a person's needs by recognizing and confirming who that person is, without frustration or urgent anticipation of change. It provides appropriate supports to accommodate the way the person is currently making meaning. Second, when a person is ready, a good holding environment "lets go," challenging learners and permitting them to grow beyond their existing perceptions to new and greater ways of knowing. Third, a good holding environment "sticks around," providing continuity, stability, and availability to the person in the process of growth. It stays, or remains in place, so that relationships can be re-known and reconstructed in a new way that supports who the person has grown to become. (p. 16)

Evidencing all three functions, Drago-Severson, et al. (2001) reported a study of 41 adult learners, in three different cohort-based programs, spanning 14 months, and finding learners experienced both support (holds well) and challenge (lets go) that encouraged growth. In specific regard to the third function (sticks around), the holding environment characteristic was uniquely served by the length of time group members worked together (Drago-Severson et al., 2001). Barnett & Caffarella (1992) reported faculty and students often identified the cohort's more intimate, safe, and supportive learning environment as a significant advantage.

Internal Motivation to Learn in Cohort-Based Learning

Motivation is inseparable from learning (O'Neil & Drillings, 1994; Ryan & Deci, 2002; Sivan, 1986; Walberg & Uguroglu, 1980; Zull, 2002), and when strong positive cohort environments exist, students report greater motivation for academic work and improved academic performance (Basom, Yerkes, Norris, & Barnett, 1995; Reynolds & Hebert, 1995), and It is then reasonable to suggest that, similar to classroom facilitators, cohort and subset learning team members influence the motivation of co-learners "through understanding another's perspective and inviting or drawing forth natural and culturally embedded sources of strength" (Ginsberg & Wlodkowski, 2009, p. 31).

Literature provides significant evidence of CBL's ability to support learning—and often times transformational learning. The cohort's structure, however, does not ensure success (Norris & Barnett, 1994). Certain learner characteristics, factors, or behaviors can limit the effectiveness of cohorts (Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994). A qualitative analysis of 47 students in various CBL programs at one university found that "age and occupational differences were valued by all, while differences in race and sexual orientation caused tension in some groups" (Lawrence, 1997, para. 9). In another qualitative analysis involving perceptions of 29 undergraduate learners in an upper-division accelerated degree program, 10 to 15 percent of students dropped out or had limited success due to non-engagement in learning processes and minimal participation (Kasworm, 2003b). Brooks (1998) reported students who did not form strong bonds with peers withdrew from the program, either physically or psychologically.

Diversity of Adult Learners

To better serve an increasingly diverse student population, much study has focused on understanding adult learning and development in relation to age (Aslanian, 2001; Craik, 2002; Fenimore, 1997; Levinson & Levinson, 1996; Schaie, 2002; Rogers, 2002); gender (Belenky, Clinchy, Goldberger, & Tarule, 1997; Bem, 1993; Brooks, 2002; Flannery & Hayes, 2002; Gilligan, 1982; Josselson, 1987; Tisdell, 1995), race and ethnicity (Cross, 1995; Helms, 1995; Johnson, 2001; Phinney, 1990), as well as sexual orientation (Brooks & Edwards, 1997; Cass, 1979; D'Augelli, 1994).

Age

Age has been examined within (a) adult cognitive development theories, (b) biological condition, and (c) intelligence. In regard to cognitive development theories, predominant discussions have evolved from age-specific sequential models to more holistic models built upon life transitions and relationships. Whereas Levinson and Levinson (1996) suggested adults evolve through a sequence of stable and transitional periods correlated with chronological age and life structure (marriage, family, occupation, religion) within certain age periods; Erikson (1982) proposed eight developmental and sequential stages not necessarily tied to age and often revisited to resolve conflicts from previous stages.

Also differing from age-related models, King and Kitchener (1994) proposed a seven-stage *Reflective Judgment Model* wherein developmental progression occurs in the way people understand the process of knowledge and in the corresponding ways that they justify their beliefs. Within the stages, individuals first perceive knowledge as derived from authority figures or personal experience, then through terms of uncertainty and subjectivity, and finally through self-construction in relation to context.

Age in and of itself is no longer considered a barrier to learning (Merriam, Caffarella, & Baumgartner, 2007; Wlodkowski, 2008). Biological conditions, such as reduced vision and hearing, can be compensated for and need not have an effect on learning ability (Merriam, Caffarella & Baumgartner, 2007; Wlodkowski, 2008). Longitudinal studies suggest that "most normal, healthy adults can be efficient and effective learners well into old age" (Schaie cited in Wlodkowski, 2008, p. 36). In fact, continued involvement with learning is among those variables reducing the risk of intellectual decline (Merriam, Caffarella, & Baumgartner, 2007).

Whether or not intelligence declines with age is a source of continued debate. Merriam and Caffarella (1999) stated: "Most agree that some decline in functioning occurs between age sixty and early seventies, but the precise nature of decline and, more important, its practical effect on learning ability are still unknown" (p. 184). Many scholars no longer regard intelligence as a unitary property and believe that while some abilities decline with age, others remain stable or increase (Merriam, Caffarella, & Baumgartner, 2007; Wlodkowski, 2008). Merriam, Caffarella, and Baumgartner (2007) cite Horn's theory of fluid and crystallized intelligence as example. Fluid intelligence involves the ability to perceive complex relations, engage in short term memory, and is typically measured by task speed. Crystallized intelligence involves the accumulated information that one learns from his or her given culture, is typically measured with non-speed attributes, and believed to decline much earlier than crystallized intelligence. Older students may indeed require more time to learn new things, but "speed of response by itself should not prevent anyone from learning what he or she wants to learn" (Wlodkowski, 2008, p. 37).

Finally, Wlodkowski (2008) warned "the construct of intelligence has a history of being oversold" (p. 41). Rather than considering intelligence in the frame of task speed or standardized test scores, more theorists today offer holistic views of intelligence. Gardner (2006) proposed people have the capacity for at least eight intelligences (Table 2-2), and Goleman (1995) contended that intelligence is multi-faceted. He proposed five domains of emotional intelligence: knowing one's emotions, managing one's emotions, motivating one's self, recognizing emotions in others, and handling relationships. Sternberg (as cited in Wlodkowski, 2008) focused on practical intelligence and proposed "being successfully intelligent involves thinking analytically, creatively, and practically and choosing effectively how and when to use these abilities" (p. 40). Although current literature does not discuss how these views of intelligence evolve across age, it is intuitive to consider the positive affect of longevity and breadth of experience facilitated through additional years of life.

Table 2-2 Gardner's Multiple Intelligences

Intelligence	Example	Core Components
Linguistic	Novelist, journalist	Sensitivity to the sounds, rhythms, and meanings of words; sensitivity to the different functions of written and spoken language.
Logical-mathematical	Scientist, accountant	Sensitivity to and capacity to discern logical and numerical patterns; ability to handle long chains of inductive and deductive reasoning.
Musical	Composer, guitarist	Abilities to produce and appreciate rhythm, tone, pitch, and timbre; appreciation of the forms of musical expressiveness.
Spatial	Designer, navigator	Capacities to perceive the visual-spatial world accurately and to perform transformations on one's initial perceptions and mental images.
Bodily-kinesthetic	Athlete, actor	Abilities to know and control one's body movements and to handle objects skillfully.
Interpersonal	Therapist, politician	Capacities to discern and respond appropriately to the moods, temperaments, motivations, and desires of other people.
Intrapersonal	Philosopher, spiritual leader	Access to one's own feelings and inner states of being with the ability to discriminate among them and draw on them to guide behavior; knowledge of one's own strengths, weaknesses, desires, and intelligences.
Naturalist	Botanist, farmer	Capacity to recognize and classify plants, animals, and minerals, including grass, all varieties of flora and fauna, and rocks.

(Wlodkowski, 2008, p. 39 adapted from Viens and Kellenbach, 2004; Checkley, 1997)

Gender

Many early learning and development models were developed from a solely male perspective and founded upon predominantly male study participants. Jordan (1997) stated "there has been a split along gender lines between the ideal of a separate, autonomous, objective male self and a relational, connected, and empathic female self" (p. 21). Many researchers have sought greater understanding of factors specifically impacting women's learning and development. Predominant theories include ways of knowing (Belenky, Clinchy, Goldberger, & Tarule, 1997), identity development (Josselson, 1987), moral development (Gilligan, 1982), and transformational learning through an understanding of women's development (Brooks, 2002).

Belenky, Clinchy, Goldberger, and Tarule (1997) stated "women struggle to claim the power of their own minds" (p. 3), and often feel "unheard even when they believe that they have

something important to say" (p. 5). In examining women's ways of knowing, the authors built upon Perry's theory of intellectual and ethical development and offered five sequential perspectives from which women view reality and form conclusions about truth, knowledge, and authority. Within the first perspective, women experience themselves as mindless, voiceless, and subject to external authority; in the second, they see themselves as capable of receiving and reproducing knowledge of external authorities but not capable of creating knowledge; and, in the third, truth and knowledge are seen as personal and subjectively known. Within the fourth perspective, women invest in learning and applying objective procedures for obtaining and communicating knowledge; and in the final perspective, all knowledge is viewed as contextual, knowledge can be created from self, and both subjective and objective knowing strategies are valued.

Building upon the work of Erickson and Marcia, Josselson's (1987) theory of identity development in women provided a framework for understanding four primary identity states. Like Marcia, Josselson's states are neither necessarily progressive nor permanent (Evans, Forney, & Guido-Dibrito, 1998). Following is a summary of the four states as explained by Josselson (1987). With the *foreclosure* state, women make choices without doubt and questioning of basic childhood messages, and automatically adopt their parents' moral standards. They are "hardworking, responsible, and capable" (p. 60), and their careers express a "preoccupation with the care of others" (p. 59). In the *identity achievement* state, ties to parental identification are broken and sense of self and identity are reorganized, identity is created through consideration of past and future identities, women value their own competence, and feel pride in self through internal rather than external affirmation. They move toward maturity through "a tolerance for ambiguity, a resignation to what is outside one's control, and increasing confidence in the capacity to affect what can be controlled (p. 104). Characterized as an unstable time, women in the *moratorium* state are in identity conflict and often seek others to define and differentiate them. Finally, the *identity diffusion* state is marked by a lack of crisis, commitment, and a tendency to withdraw from situations.

Following the work of Chodorow, Gilligan "places the centrality of connection in women's sense of self at the core of women's development" (cited in Flannery, 2002, p. 60). According to Gilligan, women define themselves in relational terms, and their sense of self and morality are integrally connected to responsibility toward other people (Flannery, 2002). Women

are more likely to morally identify with an ethic of care rather than the male predominant ethic of justice. Within the ethic of care, moral dilemmas arise from conflicting responsibilities and are resolved through contextual consideration whereas, within the ethic of justice, moral dilemmas arise from competing rights and are resolved through reasoning (Taylor, Marienau, & Fiddler, 2000).

Critically examining transformational learning through an understanding of women's development, Brooks (2002) reported women's transformations often occur differently than that proposed by Mezirow's theory. Citing Loughlin, Brooks (2002) noted that women report their transformations "in terms of coming to understand the limitations on their lives that are structured into institutions and cultures" (p. 144). Women reported developing increased awareness leading not only to authoring their own lives but also acting for societal change. Further, central to women's transformation learning are flexibility in concepts, holistic learning, interconnectedness (among both people and ideas), and capacity for change (The Group for Collaborative Inquiry as cited in Brooks, 2002). Given significant evidence that women in general are more relational than men, Brooks (2002) claimed the developmental challenge for women is "to integrate their inclination toward relatedness with a need for separateness and competence so that they won't totally subsume their own sense of identity and power (p. 148).

Race/Ethnicity

The majority of mainstream adult development theory is "based largely on the findings from a mainly White, well-educated United States population" (Hofer & Pintrich cited in Merriam & Caffarella, 1999, p. 159). However, among others, two predominant racial identity development models exist: Cross' model of Nigrescence (1991) and Helms' White Identity Development (1995). Additionally, intercultural communication theories offer insight benefiting equitable education efforts.

Nigrescence

Within the Nigrescence model, Cross' (1991) described how assimilated as well as deracinated, deculturalized, or miseducated Black individuals are transformed, by a series of circumstances and events, into persons who are more Black or Afrocentrically aligned . The model includes five sequential stages. In the first stage, *preencounter*, individuals view the world

38

from a Eurocentric perspective thereby devaluing Blackness. Attitudes range from race-neutral to seeing race as a stigma to overcome. Whiteness is viewed as the preferred racial status.

The next stage, *encounter*, entails two steps. Within the first step, individuals encounter a major event or multiple smaller events disrupting previously held identity and triggering examination of perspectives. The events may be positive, such as learning cultural information, or negative, such as experiencing acts of racism. Within the second step, individuals interpret the world through a new perspective and typically experience anger toward Whites and anxiety over becoming a different kind of Black person. Following these feelings, individuals are energized to take action and affirm their new Black identity.

The third stage, *immersion-emersion*, also entails two steps. In the first step, individuals immerse into Blackness while withdrawing from other groups. Additionally, they feel rage toward White people and their culture, guilt for previously believing what White society told them about themselves, and pride in their Blackness and culture. During the second step, individuals move out of the first step's dualistic and energy-charged mode to one of critical analysis. Individuals "seem to understand that continued growth, perhaps of a less emotional nature, lies ahead" (Evans, Forney, & Guido-DiBrio, 1998, p. 76).

Individuals in the fourth stage, *internalization*, are characterized by nonracist perspectives, a sense of inner security, and self-confidence about being Black. And, within the final stage, *internalization-commitment*, individuals replace an egocentric perspective with a group perspective. They engage in activities impacting problems shared by African Americans as well as other oppressed peoples.

White Racial Identity

Helms (1995) model of White racial identity entails six statuses within two phases, wherein individuals often display characteristics of more than one status at a time. The first phase, abandonment of racism, entails three statuses:

1. *Contact*: As individuals first encounter Black people or Black ideas, they may not be aware that they are a beneficiary of institutional and cultural racism. Additionally, they have positive feelings about the fair treatment of Blacks but experience anxiety over spending time with them. Eventually they acknowledge Blacks are treated differently than Whites in the United States.

2. In *disintegration*, individuals experience moral dilemmas associated with being White. They typically experience cognitive dissonance as they recognize disparity between societal messages of equality and witnessed inequality. Dissonance is followed by feelings of guilt, depression, anxiety, or helplessness.

3. Finally, individuals enter the *reintegration* status as they attempt to develop new beliefs. They acknowledge their White identity, accept beliefs of White superiority and Black inferiority, and may display behaviors protecting White privilege. If individuals have experiences triggering reflections of Whiteness and racism definitions, they may enter into the second phase: defining a nonracist White identity.

The second phase, defining a nonracist White identity, also entails three statuses

1. Within the *pseudo-independence* status, individuals begin to acknowledge White people's responsibility for racism and how racism is perpetuated. They feel empathy with Blacks and agitation at evidence of racism within White peer groups. However, they believe that Blacks hold the responsibility for explaining and fixing racism. During this status, White individuals may feel both suspiciously viewed by Whites and Blacks alike and marginalized.

2. Within the *immersion-emersion* status, White and Black stereotypes are replaced with more accurate information. Individuals actively seek to define who they are racially, distorted emotions are experienced, and finally negative emotions are replaced with positive ones supporting the confrontation and fight against racism and forms of oppression.

3. In the final status, *autonomy*, "race no longer poses a threat" (Evans, Forney, & Guido-DiBrio, 1998, p. 79). Individuals are not compelled to oppress or idealize non-Whites. Worldviews are broader and more flexible.

Intercultural Communication

Founded upon the work of anthropologist Edward T. Hall, intercultural communication focuses on interactions between people of different cultures (Rogers, Hart, & Miike, 2002). Specifically considered in education, Bennett and Salonen (2007) stated "while culture is often addressed in the content of the curriculum, it is less frequently incorporated into the process of

teaching;" and our global citizenship "requires powerful forms of intercultural competence" (p.46). Hofstede's (2010) Cultural Taxonomy, a currently popular tool for understanding cultural differences, includes five dimensions of differences within societal contexts.

1. *Power distance (PDI)* is the extent to which individuals perceive power differences and accept unequal power distribution.

2. *Individualism versus collectivism (IDV)* considers the extent to which individuals are integrated into groups. Individualistic societies value personal achievements and individual rights more so than collectivist societies emphasizing membership in lifelong and cohesive groups or organizations.

3. *Uncertainty avoidance (UAI)* reflects a society's tolerance for uncertainty. Individuals in high uncertainly avoidance cultures generally try to minimize uncertainty, whereas those in low uncertainly avoidance cultures feel comfortable in changeable environments.

4. *Masculinity versus femininity (MAS)* considers emotional role differences between genders. Whereas masculine cultures value competitiveness and assertiveness, more feminine cultures place more value on relationships and quality of life.

5. *Long term orientation (LTO)* reflects a culture's time horizon. Long term oriented societies value the future, as evident in persistence and saving; whereas shorter oriented societies value more pragmatic virtues, including tradition, reciprocation, and meeting social obligations.

Although literature reviewed in this section provides significant insight into the magnitude of interrelated psychological, social, and contextual factors of adult learners, "we need to go further than statistics and generalizations about cultural groups to respond to cultural diversity; we need to see adults as individuals with complex identities, personal histories, and unique living contexts" (Ginsberg & Wlodkowski, 2009).

Enhancing Adult Motivation to Learn

"One may certainly influence the motivation of people, but it happens through understanding another's perspective and inviting or drawing forth natural and culturally embedded sources of strength" (Ginsberg & Wlodkowski, 2009, p. 31). Inherent in this statement

is an acknowledgement that efforts must transcend predominant sociocultural perspectives for equitable benefit across increasingly diverse adult learner populations.

As explained in the *Motivational Framework for Culturally Responsive Teaching* (Framework) (Wlodkowski & Ginsberg, 1995), educators and co-facilitators can equitably elicit intrinsic motivation for culturally diverse learners when the following four conditions are interrelated, reciprocal, and experienced by the learner as an emotional state (Figure 2-2):

1. *Inclusion:* Norms and practices are woven together to create a learning environment in which learners and teachers feel respected and connected to one another.
2. *Attitude:* Norms and practices create a favorable disposition toward the learning experience through personal relevance and volition.
3. *Meaning:* Norms and practices create challenging and engaging learning experiences that include learners' perspectives and values.
4. *Competence:* Norms and practices help learners understand how they are effectively learning something they value and of authentic value to their community.
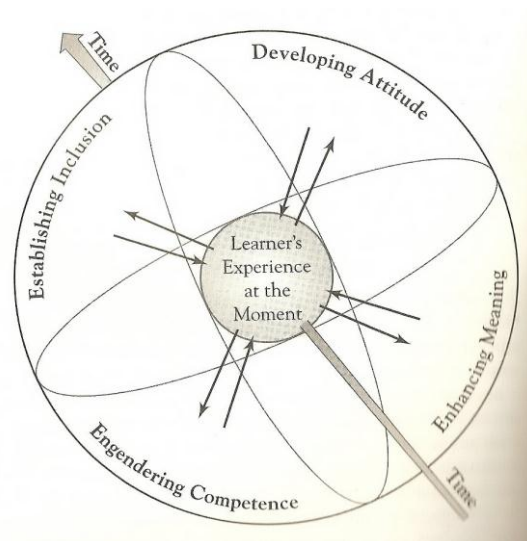
Figure 2-2 The Motivational Framework for Culturally Responsive Teaching
(Wlodkowski & Ginsberg, 1995, p. 34). Reproduced with permission.

The *inclusion* condition speaks not only to equitable opportunity for motivation to learn but, in so doing, speaks to equitable opportunity to learn (Ginsberg & Wlodkowski, 2009).

Learning is impeded when learners feel excluded or marginalized in a learning environment (Ginsberg & Wlodkowski, 2009; Thernstrom & Thernstrom, 2003; Watson, Terrell, Wright, & Associates, 2002), and learning begins with developing relationships that demonstrate respect for the inclusion of different cultures and in creating a learning environment that all students can accept (Davis, 1992; Wlodkowski, 2008).

The *attitude* condition entails developing favorable dispositions toward the learning experience and the effort required therein. Key to this condition is learners' perception of relevance. Learning is relevant when it reflects learners' personal, communal, and cultural meanings in a manner demonstrating a respectful awareness of his or her perspective (Wlodkowski, 2003b, p. 43). When relevance and volition are present, most adults are initially motivated to learn (Wlodkowski, 2008). Thereafter, self-motivation is elicited through four areas of attitudinal focus toward: instructor, subject, self-efficacy for learning, and learning goal or performance (Davis, 1992; Sass, 1989; Wlodkowski, 2008). An attitude is the combination of a perception and judgment often resulting in an emotion-influenced behavior (Ellis, 1989). Eliciting intrinsic motivation occurs when the four areas of attitudinal focus are aggregately positive (Wlodkowski, 2008).

The *meaning* condition occurs when surface knowledge is utilized as foundation for increasingly complex concepts potentially generating deeper meaning. As explained by Wlodkowski (2003b), learners create meaning as they engage in challenging learning activities. Learners first pay attention to something when its variation, novelty, or relevance has emotional weight or meaning. Engagement occurs when attention persists, interest is evoked, and cognitive effort is exerted. "Engagement is the process, and challenge is the opportunity" (Wlodkowski, 2003b, p. 44). Meaning is more difficult to define (Csikszentmihalyi, 1990; Ginsberg & Wlodkowski, 2009). One way to define meaning is as surface knowledge, such as facts and procedures that give identity or clarify but do not "deeply touch our psyche" (Ginsberg & Wlodkowski, 2009, p. 187). Another way to define meaning is through linking information to something that matters to learners (Sousa, 2006). In this view, intrinsic motivation is elicited through relevance and emotional response (Ginsberg & Wlodkowski, 2009). At a deeper level, this view of meaning can provoke passionate feelings and generate a strong sense of purpose (Csikszentmihalyi, 1997).

The *competence* condition results from providing a measure of proficiency level and learning progress (Ginsberg & Wlodkowski, 2009). Strong evidence supports assessment as the activity most validating learner competence (Elliott & Dweck, 2005; Hattie & Timperley, 2007). Humans desire to be effective in authentic and valuable ways (Csikszentmihalyi, 1997; Ginsberg & Wlodkowski, 2009; Pink, 2009; Plaut & Markus, 2005). "At some level, competence connects with our dreams, with that part of us that yearns for unity with something greater than ourselves" (Wlodkowski, 2008, p. 309). Competence engendering assessment meets two primary criteria: authenticity and effectiveness (Ginsberg & Wlodkowski, 2009). Assessment is authentic when it is aligned with the learner's life circumstances, frames of reference, and values; and effective when it provides the learner an awareness of his or her level of proficiency or accomplishment (Wlodkowski, 2008).

Summary

The assumptions of adult learning include self-direction, participation corresponding with social role identity, immediate application, meaning making from experience, and internal motivation (Knowles, 1980). Meaning making from experience and internal motivation assumptions are predominantly foundational to this study. Meaning making from experience is predominant in theories of transformational learning and development (Kegan, 1994; Mezirow, 1978), and internal motivation is widely discussed in the literature, with perspectives evolving from social role explanations into more complex psychosocial perspectives of participation (Boshier, 1973; Cross, 1981; Miller, 1967; Rubenson, 1977). Additionally, the discussion of internal motivation has shifted from one of motivation to participate to one of motivation to learn.

CBL programs provide an opportunity to enhance learning—even transformational learning (Barnett & Caffarella, 1992; Drago-Severson et al., 2001; Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994). In many CBL programs, students participate within both a cohort group and a subset learning team working together to complete group projects and assignments throughout the program (Kasworm, 2003b; Saltiel & Russo, 2001; Wenger, 1998). Motivation to learn is a key component of successful cohort-based learning (Basom, Yerkes, Norris, & Barnett, 1995; Reynolds & Hebert, 1995), and the cohort's key contribution to student success is in

learners taking responsibility for creating and enhancing the learning experience for themselves as well as others (Imel, 2002).

Although much study offers insight into the magnitude of interrelated psychological, social, and contextual facets found within adult learning participants, "we need to go further than statistics and generalizations about cultural groups to respond to cultural diversity; we need to see adults as individuals with complex identities, personal histories, and unique living contexts" (Wlodkowski, 2008, p. 44).

Learning is inseparable from motivation (O'Neil & Drillings, 1994; Ryan & Deci, 2002; Sivan, 1986; Walberg & Uguroglu, 1980; Zull, 2002), always cultural (Cranton, 1996; Hays, 2001; Markus & Kitayama, 1991; Wlodkowski, 2008), and impeded when learners feel excluded or marginalized in a learning environment (Ginsberg & Wlodkowski, 2009; Thernstrom & Thernstrom, 2003; Watson, Terrell, Wright, & Associates, 2002). Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching* explained four interrelated conditions eliciting intrinsic motivation to learn for all learners: inclusion, attitude, meaning, and competence.

CHAPTER 3 - Methodology

This chapter describes the methodology used in this study. Research questions are followed by design overview including identification of study variables, setting, data sources, population, and sampling technique. Research procedures are then described in detail addressing instrument design, pilot study administration, validity and reliability measures, data collection, study assumptions and limitations, and analyses procedures.

Research Questions

The study was guided by the following research questions exploring adult learners' perceptions of current conditions eliciting intrinsic motivation to learn in a CBL program.

Research Question One – Classroom

Does current level of learner-perceived motivational conditions in *classroom* environments differ across demographic categories?

> Research hypothesis: The researcher expected a significant difference in the dependent variable (*level of classroom conditions eliciting intrinsic motivation to learn*) across independent variable (*age, gender, race, and degree-level*) categories.
>
> 1. Ho1: There is no significant difference in dependent variable *level of classroom conditions eliciting intrinsic motivation to learn* across *age*.
> 2. Ho2: There is no significant difference in dependent variable *level of classroom conditions eliciting intrinsic motivation to learn* across *gender*.
> 3. Ho3: There is no significant difference in dependent variable *level of classroom conditions eliciting intrinsic motivation to learn* across *race/ethnicity*.
> 4. Ho4: There is no significant difference in dependent variable *level of classroom conditions eliciting intrinsic motivation to learn* across *degree-level*.

Research Question Two – Out-of-Classroom

Does current level of learner-perceived motivational conditions in *out-of-classroom* team learning environments differ across demographic categories?

Research hypothesis: The researcher expected a difference in the dependent variable (*level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn*) across independent variable (*age, gender, race, and degree-level*) categories. Research question two null hypotheses follow:

1. Ho1: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *age*.

2. Ho2: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *gender*.

3. Ho3: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *race/ethnicity*.

4. Ho4: There is no significant difference in dependent variable *level of out-of-classroom team learning conditions eliciting intrinsic motivation to learn* across *degree-level*.

Research Question Three – Condition Correlation with Current Learning

Does level of *classroom* or *out-of-classroom* team learning conditions better correlate with learner-perceived level of current learning?

Research hypothesis: The researcher expected level of *out-of-classroom* team learning conditions, rather than *classroom* conditions, to more closely correlate with learner-perceived level of current learning.

(Ho1): Correlation between level of *out-of-classroom* team learning conditions and learner-perceived overall level of current learning is less than or equal to correlation between level of *classroom* conditions and learner-perceived level of current learning.

Research Question Four – Exploration of Learner Experiences

The final research question was qualitative in nature and asked what experiences learners recall as positively or negatively impacting motivation to learn in either classroom or out-of-classroom learning environments.

Research Design Overview

Founded upon Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching* (Framework), the purpose of this study was to (a) assess and benchmark current levels of conditions eliciting intrinsic motivation to learn in both CBL classroom and out-of-classroom team learning environments, (b) identify differences in measures across demographic categories, (c) identify correlations between measures of condition and learner-perceived overall level of current learning, and (d) collect specific examples of experiences deemed positively or negatively impacting motivation to learn.

The *Motivational Conditions in Learning Instrument[©]* (MCLI[©]) was created with two Likert scales, each comprised of subscales operationalizing the Framework's four interrelated conditions (inclusion, attitude, meaning, competence), and measuring the dependent variable *level of conditions eliciting intrinsic motivation to learn*. The first scale measured classroom conditions whereas the second measured out-of-classroom team learning conditions. Independent variables were *age, gender, race, and degree-level* (Table 3-1). An *overall current learning* statement facilitated identification of correlations between each of the scales and subscales (Tables 3-2). A concluding open-ended question provided respondents with opportunity to add further insight into experiences impacting motivation to learn. The MCLI[©] is provided in Appendix D.

Table 3-1 Variables - Research Questions One and Two

Variables	Type	Description
Dependent		
Motivational Conditions in Classroom Experiences	Scale: Discrete (ordinal)	Likert scale operationalizing the *Motivational Framework for Culturally Responsive Teaching* (Wlodkowski & Ginsberg, 1995)
Motivational Conditions in Out-of-Classroom Team Learning Experiences	Scale: Discrete (ordinal)	Likert scale operationalizing the *Motivational Framework for Culturally Responsive Teaching* (Wlodkowski & Ginsberg, 1995) applied to the out-of-classroom learning environment
Independent		
Degree-Level	Discrete (nominal)	Researcher coded as respondent's current program level: associates, bachelors, or masters
Age	Discrete (ordinal)	Respondent-reported in years; researcher coded within ordinal ranges
Gender	Discrete (nominal)	Respondent-reported: female, male
Race	Discrete (nominal)	Respondent-reported; response categories adhered to National Center for Educational Statistics *Standards for Defining Race and Ethnicity Data* (2008).

Table 3-2 Variables - Research Question Three

Variables	Type	Description
Level of current overall learning	Discrete (ordinal)	Single attitudinal rated item
Motivational Conditions in Classroom Experiences	Scale: Discrete (ordinal)	Likert scale operationalizing the *Motivational Framework for Culturally Responsive Teaching* (Wlodkowski & Ginsberg, 1995)
Motivational Conditions in Out-of-Classroom Team Learning Experiences	Scale: Discrete (ordinal)	Likert scale operationalizing the *Motivational Framework for Culturally Responsive Teaching* (Wlodkowski & Ginsberg, 1995) applied to the out-of-classroom learning environment

Setting for the Study

The study was conducted at multiple campuses of one Midwest University (University). The University is accredited by the North Central Association of Colleges and Universities, and significantly experienced in offering CBL accelerated degree programs. Within the University, one school (School) exists specifically to serve adult students seeking professional and graduate degrees and offers associates, bachelors, and masters-level degree programs. At the time of the study, the University delivered programs at five satellite campuses situated within three different Midwestern urban areas, and online. To best align with existing cohort-based accelerated degree program literature, this study did not explore online cohorts.

At each location, students participate within a cohort progressing through a designated course sequence until degree completion. Additionally, within each cohort, students participate in a learning team comprised, on average, of four members. The study team component was one reason for selecting the University as the study setting. Other reasons were the offering of multiple degree-level programs and multiple geographic locations, facilitating cross-sectional examination of responses across degree-level and increased research generalizing power, respectively.

Courses at the University are primarily facilitated by adjunct instructors who are professionals in their areas of expertise. Selected through an interview and lecture demonstration process, instructors must demonstrate abilities in engagement strategies and critical reflection modeling. Furthermore, periodic peer-reviews identify instructor skill in creating an environment of respect, establishing a culture of learning, communicating clearly and accurately, providing effective feedback, practicing proficient questioning technique, and engaging students in learning.

Students begin their degree program with an orientation course including curriculum on: building self-confidence through decision-making and problem-solving ability; learning to work with others under pressure; learning to lead, and to follow, others; achieving higher-level quality and performance in course deliverables; sharing teaching and learning responsibilities; developing interpersonal skills; learning to work collaboratively; and developing lasting relationships with peers. The primary deliverable of the orientation course is a team constitution.

All cohorts participate in weekly four-hour instructor-led classroom sessions, and course durations range between five and eight weeks depending upon the curriculum. Students typically have any given instructor for only one course in their program. Additionally, all learning teams are expected to meet outside of class a minimum of three hours per week. Learning team meetings are expected to include team discussion, planning, and efforts to assist one another in learning and team assignment deliverables.

Data Sources

The *Motivational Conditions in Learning Programs Instrument*[©] (MCLI[©]) was the primary data source. Cohort location and degree-level data were provided by the University.

Population

Limited to students enrolled in on-ground CBL programs at the School, the population included 754 students. Table 3-3 describes the population by location and degree-level. Demographically, the population included 47% male and 53% female students; the majority of students (78%) were between the ages of 26 to 45, nearly 8% between the ages of 21 to 25, and 14% between the ages of 45 and 62. Additionally, nearly 72% of the population was self-identified as White/Caucasian, 12% Black/African American, 2% Hispanic/Chicano/Latino, 2% Asian/Pacific Islander, 2% American Indian/Alaskan Native, 2% "two or more races," and 9% other or unspecified.

Table 3-3 University Enrollment by Degree-Level and Location

Degree-Level	Area 1 (1 location)	Area 2 (1 location)	Area 3 Location 1	Area 3 Location 2	Area 3 Location 3	Total
Associates	33	43	69	14	19	178
Bachelors	52	52	126	0	0	230
Masters	37	46	210	31	22	346
Total	122	141	405	45	41	754

Sampling

The sampling frame was comprised of all cohorts enrolled in the School at the time of study, and the sample unit was a student enrolled in any selected cohort. Surveys were administered to all students in attendance during each selected cohort's survey administration.

The researcher understood that random sampling error occurs in all sampling processes: Any given sample result will differ to some extent from the results of the population it represents (Dillman, 2000; Zikmund, 1997). In an effort to mitigate random sampling error, the study employed multi-stratification sampling (Figure 3-1).

Firstly, random sampling error is reduced when stratified groups are homogeneous within and heterogeneous between groups (Alreck & Settle, 1995; Krathwohl, 2004; Zikmund, 1997). Although unknown prior to study results, respondents in higher level degree programs, with greater CBL experience, would conceivably perceive levels of conditions more similarly (homogenously) within their group and more differently (heterogeneously) than those in lower level degree groups. The sampling frame was therefore stratified by program degree-level.

Secondly, the need to increase generalizing power (Krathwohl, 2004; Zikmund, 1997) through representativeness across multiple-locations required stratification. Because the number of programs underway at any given date differed across geographic location; it was likely that sampling without a second level of stratification would result in representativeness bias—more course selections from one location than others. Therefore, the degree-level stratified samples were additionally stratified by geographic location.
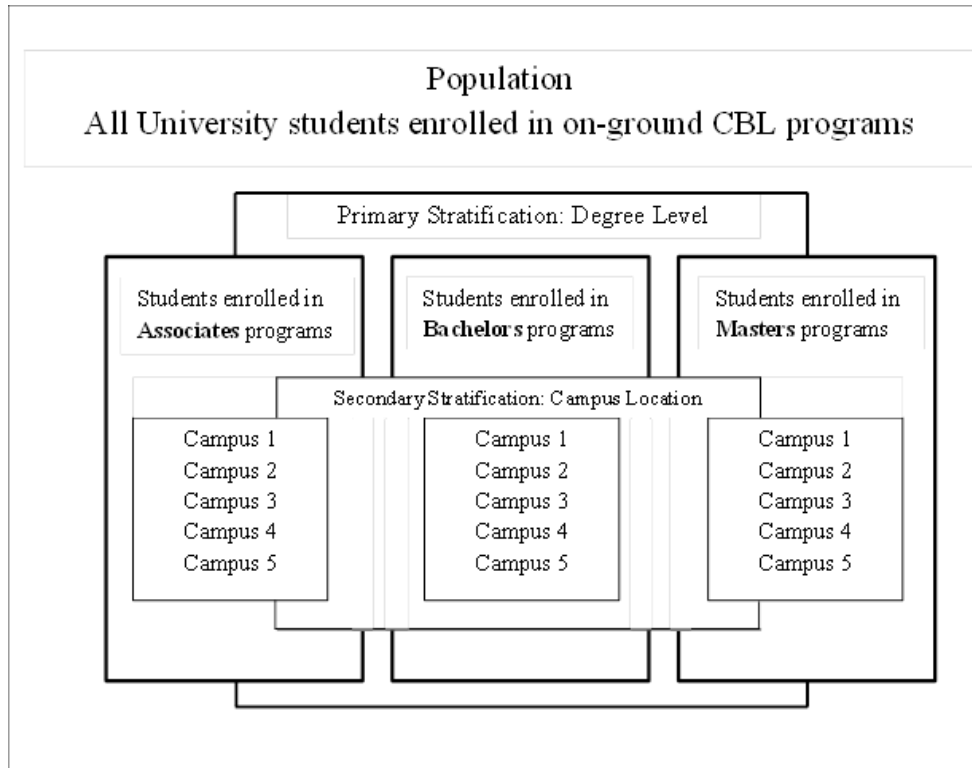
Figure 3-1 Multi-Stratification Model

Because the study's random sampling occurred by cohort, rather than individual, the researcher first determined the appropriate total and stratified sample sizes, and then determined the number of cohort sections necessary to meet or exceed the stratified sample sizes. The following two calculations were used to determine a) minimum sample size (Zikmund, 1997), and b) stratified sample size (StatTrek, 2010), respectively.

Sample Size Involving Differences in Means:

$$n = (ZS/E)^2$$
$$75.95 = [[(1.96)(.667)]/.15]^2$$

Where:

Z = standardized value associated with a 95 percent confidence level

S = estimate of the population standard deviation: Rule of thumb is $1/6^{th}$ of Range = (.1667)4 wherein range is Likert scale values from 1 to 5

E = acceptable magnitude of error

Given a 95 percent confidence level, .667 estimated population standard deviation, and .15 acceptable magnitude of error, the minimum sample size is 76.

Sample Size by Strata using Proportionate Stratification:

$$n_a = (N_a/N)*n$$
$$18 = ceiling(178/754)*76$$
$$n_b = (N_b/N)*n$$
$$24 = ceiling(230/754)*76$$
$$n_m = (N_m/N)*n$$
$$35 = ceiling(346/754)*76$$

Where:

n_a = sample size for associate strata

n_b = sample size for bachelor strata

n_m = sample size for master strata

N_a = population size for associate strata

N_b = population size for bachelor strata

N_m = population size for master strata

N = total population size

N = total sample size (as determined by $n = (ZS/E)^2$)

The stratified sample sizes, given the enrollment reported in Table 3-3 and calculated minimum sample size, were: associates 18, bachelors 24, and masters 35.

The number of cohorts needed to meet or exceed stratified sample size was determined by dividing degree-level stratified sample sizes by corresponding average cohort enrollments. This calculation resulted in a number less than the number of campus locations (five). The researcher therefore chose to override proportionate stratification results and instead selected one cohort from each degree-level underway at each location (Table3-4). Although this decision resulted in non-proportional stratified samples, the researcher believed study methodology was more positively impacted by increased generalization power (all locations represented) and increased sample size than negatively impacted by non-proportional stratification.

Table 3-4 Multiple-Stratification Sampling Summary

Degree-Level	Stratified Sample Size	Average Course Size	Number of cohorts to meet or exceed stratified sample size was less than number of locations (5)	Decision to randomly select one cohort from each degree-level underway at each location
Associates	18	12	2	5
Bachelors	24	10	3	3
Masters	35	14	3	5

Instrument Design

The MCLI© (Appendix D), constructed using elements of Dillman's Tailored Design Method (2000) and designed with: (a) a single overall learning attitudinal statement, (b) two Likert scales, each comprised of subscales operationalizing the Framework's four interrelated conditions (inclusion, attitude, meaning, competence), and measuring the dependent variable *level of conditions eliciting intrinsic motivation to learn*; (c) a brief demographic section, and (d) a concluding open-ended question. Following are steps taken in creating the instrument.

1. Creation of an opening attitudinal statement pertaining to overall current learning. Statements within a scale are neither autonomous nor independent and should not be analyzed separate from the scale as a whole (Carifio & Perla, 2007). The opening attitudinal item was created separate from the subsequent Likert Scale sections to facilitate correlation analysis between level of overall current learning and that of both classroom and out-of-classroom team learning conditions eliciting intrinsic motivation to learn.

2. Creation of two scales, one for classroom conditions and one for out-of-classroom team learning conditions, each measuring perceptions of current levels of conditions eliciting intrinsic motivation to learn.

    a. Composition of scale statements operationalizing the four interrelated conditions identified in Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teachin*g: inclusion, attitude, meaning, and competence.

    b. The inclusion of both positive and negative statements adhered to Likert's original design and facilitated internal tests of validity (Ary, Jacobs, Razavieh, & Sorensen, 2006; Carifio & Perla, 2007), and allowed for identification of any measurement error resulting from respondents

routinely selecting responses among the first rating scale choices (Dillman, 2000).

    c.   Use of a five-point scale adhered to prescribed practice demonstrating optimized rating scale reliability and validity (Trouth, 2009) and adequately supported statistical tests (Carifio & Perla, 2007). Additionally, the five point scale included a neutral point which is an appropriate level of the underlying affective trait (Raaijmakers, van Hoof, Hart, Verbogt, & Vollebergh, 2000).

3.   Creation of a brief demographic section including identification of age, gender, and race.

4.   Creation of a concluding open-ended question facilitated the opportunity to gain additional insight into respondents' perceptions of experiences impacting motivation to learn within CBL programs.

Procedures

Foundation for this study was the *Motivational Framework for Culturally Responsive Teaching* (Wlodkowski & Ginsberg, 1995). The *Motivational Conditions in Learning Instrument*© (MCLI©); created through rigorous design conventions (Dillman, 2000), expert review, and pilot study analysis, facilitated (a) measurement and benchmarking of conditions eliciting intrinsic motivation to learn in both classroom and out-of-classroom learning environments; (b) identification of differences in measures across demographic and degree-level categories; and (c) identification of relationships between measures of condition and learner-perceived overall level of current learning. Finally, the instrument facilitated insight into learner experiences deemed positively or negatively impacting motivation to learn.

Pilot Study

Conducted during March, 2012, a pilot study provided insight into respondent perceptions of survey design and data for validity and reliability tests. Purposefully selecting cohorts from those participating in a final program course removed any likelihood of selecting a pilot study cohort in the final study's random selection process. Additionally, purposefully selected pilot study cohorts from each degree-level garnered understanding across all degree-

levels and adhered to pretest protocol that respondents resemble the target population (Converse & Pressor, 1986). The pilot study cohort selection resulted in the following response characteristics (Table 3-5) and met a reasonable pretest N of 25 to 75 (Converse & Pressor, 1986):

Table 3-5 Pilot Study Response Results

Degree-Level	Location	Number of Responses
Associates	Area 1	9
Bachelors	Area 1	9
Masters	Area 3, Location 1	19
Total		37

Mirroring the planned final study data collection procedure described later in this chapter, pilot study administration occurred in-person during a cohort's respective class meeting. Participants received a verbal introduction to the study instrument, informed consent document, and request to complete the informed consent form. All participants agreed to participate, and their respective consent forms were preserved. Additionally, within the consent forms, participants were asked to indicate their willingness to participate in a response process study. Of the 37 respondents, five associates, six bachelors and five masters-level students agreed to participate.

Prior to a telephone interview occurring within three days of instrument administration, each participant received an electronic copy of the instrument for recollection and reference purposes. A response synopsis is provided in Appendix E and further documented in the validity section of this chapter.

Data Collection

Motivating respondents is the best defense against non-response problems and greater when surveys are administered in-person (Krathwohl, 2004). Because this study's instrument was administered to participants while in their respective classrooms, the possibility of non-response was isolated to either student absence during survey administration or non-participation choice, in part or entirety.

Efforts to eliminate non-participation choice were integrated into the survey administration plan which employed social exchange theory considerations of rewards, costs, and trust (Dillman, 2000). According to the theory, social behavior is the result of an exchange process wherein the purpose is to maximize benefits and minimize costs: Individual behaviors are motivated by expected reactions to those behaviors (Dillman, 2000). In applying this theory to survey response, Dillman (2000) categorized design and administration efforts according to the theory's three critical elements of rewards, costs, and trust. Table 3-6 lists practices as applied to this study's design and data collection procedure.

Survey administration occurred in-person during randomly selected cohorts' weekly classroom meeting. The administration dates occurred during April and May, 2012 and were specifically scheduled to occur in classes where the course section underway had met for at least two previous sessions. During each administration, the administrator adhered to the Administrator's Pre-Survey Script (Appendix G) to assure consistent communication of study details and data collection procedures to each cohort. These remarks briefly explained the survey topic and that the data collection was part of a dissertation effort—thereby requiring a review of the informed consent statement (Appendix H) and completion of the consent form (Appendix I). Participants were encouraged to ask questions at any time during the data collection. As described in Table 3-6, consent forms and instruments were collected in separate envelopes to assure participant anonymity.

Table 3-6 Study's Application of Social Exchange Theory

To Increase Rewards	Application to this Study
Show positive regard	Positive regard and appreciation was demonstrated in the administrator's pre-survey script (Appendix G). Specifically, positive regard for students was exemplified in remarks pertaining to their selection for participation and importance of advice in gaining additional understanding of motivational conditions experienced in CBL programs—and in potentially impacting the success of future students.
Communicate scarcity of response opportunities (exclusivity)	
Ask for advice	
Support group values	
Give social validation	
Say "thank you"	Appreciation was expressed during administrator pre-survey remarks and in concluding written survey content.
To Reduce Social Costs	
Avoid subordinating language	The survey instrument and administrator's pre-survey script were composed for ease of understanding by all participants, without presumption of subordination at any degree-level. The response-process study, conducted as part of the pilot study, demonstrated statement understanding.
Avoid embarrassment	Participants were assured of anonymity during administrator's pre-survey remarks and within the instrument. Additionally, participants were directed to submit their completed surveys in one envelope and their consent forms, which identified them by name, in a separate envelope.
Avoid inconvenience	Inconvenience was avoided through in-person classroom administration.
Make survey instrument short and easy	The survey instrument was concise. It comprised two Likert scales, a brief demographic section, and one open-ended question.
Minimize requests to obtain personal information	The demographics section of the survey was concise. The need to acquire personal information was communicated in the administrator's pre-survey remarks and briefly reiterated in the instrument's demographic section instructions.
To Establish Trust	
Identify task importance	Importance of the task was communicated within the administrator's pre-survey remarks and reiterated in the survey directions.
Sponsorship by legitimate authority	Participants were informed of approval by the Institutional Review Boards of both Kansas State University and the hosting University.

Survey instruments were administered in-person to 137 (91.3%) of 150 adult learners enrolled within 13 randomly selected cohorts, by degree-level and location stratification. Two selected learners declined participation, whereas eleven were absent on their respective cohort's survey administration date. Of the 137 responses, one survey was disqualified from scale analysis due to non-response on a significant number of scale statements. Additionally, 23 of the 137 responses were disqualified from correlation analysis due to non-response on the overall learning statement. As shown in Table 3-7, this resulted in valid response rates of 91.28% for scale analysis and 89.68% for correlation analysis. All completed instrument responses were manually coded and entered into Microsoft Excel™ for initial data review and then migrated into SPSS™ statistical analysis software. All completed instruments and consent forms were preserved.

Table 3-7 Survey Response Rate

Survey Cohort	# Students Enrolled in Cohort	Surveys Completed	Diqualified from Scale Analysis	Scale Analysis n	Valid Response Rate % Scale Analysis[a]	Disqualified from Correlation Analysis	Corr. Analysis n	Valid Response Rate % Correlation Analysis[b]
Area 1								
Associates	7	7	0	7	100.00%	3	4	100.00%
Bachelors	14	14	0	14	100.00%	2	12	100.00%
Masters	14	11	0	11	78.57%	2	9	75.00%
Total Area 1	35	32	0	32	91.43%	7	25	89.29%
Area 2								
Associates	9	9	1	8	100.00%	4	5	100.00%
Bachelors	15	15	0	15	100.00%	3	12	100.00%
Masters	10	9	0	9	90.00%	0	9	90.00%
Total Area 2	34	33	1	32	96.97%	7	26	96.30%
Area 3-Location1								
Associates	8	5	0	5	62.50%	1	4	57.14%
Bachelors	17	17	0	17	100.00%	3	14	100.00%
Masters	12	11	0	11	91.67%	1	10	90.91%
Total Location1	37	33	0	33	89.19%	5	28	87.50%
Area 3-Location2								
Associates	12	11	0	11	91.67%	3	8	88.89%
Bachelors	0	0	0	0	n/a	0	0	n/a
Masters	10	9	0	9	90.00%	0	9	90.00%
Total Location 2	22	20	0	20	90.91%	3	17	89.47%
Area 3-Location3								
Associates	10	9	0	9	90.00%	2	7	87.50%
Bachelors	0	0	0	0	n/a	0	0	n/a
Masters	12	10	0	10	83.33%	0	10	83.33%
Total Location 3	22	19	0	19	86.36%	2	17	85.00%
Total Area 3	81	72	0	72	88.89%	10	62	87.32%
Total by Degree Level								
Associates	46	41	1	40	88.89%	13	28	84.85%
Bachelors	46	46	0	46	100.00%	8	38	100.00%
Masters	58	50	0	50	86.21%	3	47	85.45%
Total All Cohorts	150	137	1	136	91.28%	24	113	89.68%

Note: Disqualified surveys are excluded from both *the Students Enrolled in Cohort* and *Surveys Completed* for this calculation. [a]*Valid Response Rate % Scale Analysis = n/(Students Enrolled in Cohort – Disqualified from Scale Analysis).* [b]*Valid Response Rate % Correlation Analysis = n/(Students Enrolled in Cohort – Disqualified from Correlation Analysis).*

Data Analysis

Quantitative analysis was facilitated through the use of Microsoft Excel™ and Statistical Package for the Social Sciences (SPSS™) software. Validity and reliability were tested in both the pilot and final study. As required of parametric measures, tests next examined assumptions of population normal distribution and homogeneity of variance. Facilitating comparison of sample

characteristics with those of the population, descriptive statistics were then computed for the sample as a whole, as well as demographic factors. Finally, inferential statistics were employed to (a) identify scale (classroom and out-of-classroom) and subscale (inclusion, attitude, meaning, and competence) differences across age, gender, race, and degree-level categories; and (b) relationships between measures of condition and learner- perceived overall level of current learning.

A predominant debate in the Likert scale literature surrounds the measurement level of collected data. The impact of this debate lies in the fact that measurement level, in general, dictates the type of statistical analysis appropriate in a study (Alreck & Settle, 1995; Howell, 2004; Huck, 2004; Zikmund, 1997). It is commonly understood if data is continuous—either interval or ratio level—an opportunity exists to parametrically analyze results. Conversely, if data are discrete—either nominal or ordinal—the data presumably does not adhere to statistical assumptions of normality and equality of variance, thereby restricting analysis to nonparametric tests and descriptive statistics.

Most scholars consider Likert scale data ordinal (Goldstein & Herson, 1984; Huck, 2004; Jamieson, 2004; Trouth, 2009). However, many researchers argue that parametric tests are routinely robust to violations of normality and equality of variance and can thereby be effectively applied to non-continuous data (Howell, 2004). Harris (as quoted in Pell, 2005) stated:

> A number of authors … have pointed out that statistical conclusions are valid whenever the distributions of numbers from which the data are sampled meet the assumptions used to derive the particular techniques of the measurement process which generated those numbers …. (p. 970)

In regard to Harris' statement, Likert item responses are, in fact, derived from a distribution of numbers—the underlying attitudinal concept—that is continuous and is presumed, unless tested otherwise, to meet the assumptions of normality and homogeneity of variance.

Analysis of variance (ANOVA) was initially chosen as the technique for examining differences across independent categories. However, ANOVA was precluded by non-conforming conditions required of parametric analysis. Although two of four conditions—random sampling and independent observations—were met through methodology design. The third and fourth conditions—assumptions of population normality and homogeneity of variance—were not

substantiated. Kruskal-Wallis non-parametric test procedures were therefore used in analysis of differences in independent variable means, and Spearman's Rho was used to determine strength and direction of relationships between level of current learning and each of the scales and subscales.

Qualitative analysis of the open-ended question was facilitated through manual examination. Responses to the single open-ended question were analyzed according to Creswell's data analysis spiral (cited in Leedy & Ormond, 2010). Identified themes are reported in Chapter Four, and a verbatim record of responses is provided in Appendix J.

Validity

Validity is the degree to which evidence and theory support the interpretation of test scores entailed by proposed uses of tests (Ary, Jacobs, Razavieh, & Sorensen, 2006). Three of the most frequently used validity procedures are content-based, construct-related, and criterion-related. (Ary et al., 2006; Huck, 2004). Content-based and construct-related evidence established this study's validity, whereas the criterion-related procedure was not feasible due to the procedure's reliance on a comparison instrument administered to the same respondents as those completing the instrument being reviewed.

Content-Based Evidence

Content-based evidence of validity is the degree to which sample items, tasks, or questions on a test are representative of some defined universe or domain of construct (Krathwohl, 2004), and generally results from logical examination (Ary et al., 2006; Huck, 2004). One prominent authority on adult undergraduate students in higher education, including those in cohort-based programs, reviewed the initial study overview and provided preliminary comments for consideration. Additionally, Dr. Raymond Wlodkowski reviewed the initial statements for representativeness and provided input for consideration in further development.

Construct-Related Evidence

Construct-related evidence of validity focuses on scores as a measure of a psychological construct and provides an indication of whether or not the instrument measures what it is intended to measure (Ary, Jacobs, Razavieh, & Sorensen, 2006). Further, construct validity must

be investigated whenever no criterion or universe of content is accepted as entirely adequate to define the quality to be measured (Cronbach & Meehl, 1955), such as motivation to learn.

Ary et al. (2006) identified five strategies in building construct-related evidence: related measures studies, known-group techniques, intervention studies, internal structure studies, and response process studies. The internal structure and response process strategies are sufficiently facilitated through single instrument administration. Conversely, related measures, known-group, and intervention strategies require multiple administrations or comparative measures. Due to the resource constraints of this study, selected strategies were isolated to those facilitated through single administration. Furthermore, a lack of sufficient comparison data eliminated the ability to explore validity in relation to previous benchmarks.

Internal structure analysis is founded upon the idea of internal consistency. As such, some statement responses should be similar (positively inter-correlated) with others; whereas others should be dissimilar (negatively inter-correlated) (Ary et al., 2006; Huck, 2004). In this study, each scale was comprised of subscales operationalizing the Framework's four interrelated and reciprocal conditions. Therefore, it was reasonable to expect subscales to be similar (positively inter-correlated). At a more rudimentary level, it was also reasonable to expect aggregate positive statement scores to be dissimilar from aggregate negative statement scores (negatively inter-correlated) prior to reverse scoring. Spearman's Rho (r_s) was employed to analyze inter-correlations. The resulting value of each analysis reflected the degree to which statements varied together. Values between 0.1 and 1.0 reflected positive inter-correlations, whereas values between -0.1 and -1.0 reflected negative inter-correlations.

Validity was evidenced in pilot study results (n=37). Positive inter-correlations existed between all subscales, within both the classroom and out-of-classroom scales. As documented in Appendix F, classroom and out-of-classroom inter-correlations ranged from r_s=.310 to .569 and r_s=.663 to .876, respectively. Similarly, the final study (n=136, one survey omitted) resulted in positive inter-correlations within both scales: classroom correlations ranged from r_s=.396 to .678, whereas out-of-classroom correlations ranged from r_s=.645 to .783. Additional validity was evidenced in negative inter-correlations between aggregate positive and negative statement scores within each scale. The pilot study data resulted in classroom and out-of-classroom values of r_s= -.565 and -.718, respectively; whereas final study data resulted in values of r_s=-541 and -636, respectively (Appendix F).

The second method, a response process study, entailed interviewing 16 of 37 pilot study respondents about their responses to survey statements and in regard to the survey in general. Four questions were asked of each respondent.

1. After reviewing the survey statements now, and reflecting on your efforts in completing the survey during class, do any of the statements seem unclear to you?
2. Was it difficult for you to separate your perceptions of classroom experiences with your perceptions of out-of-classroom team learning experiences?
3. As you consider your motivation to learn in your classroom and out-of-classroom team learning experiences, do you believe anything was missing in the survey?
4. Do you have any other suggestions for survey improvement?

No problems with statement clarity and understanding were reported with the exception of the term "learner." The survey instrument was revised accordingly, using instead the term "student." Likewise, no problems were reported in regard to separating perceptions of experiences between those in the classroom and those in out-of-classroom team based learning. Responses to question three varied and were outside the study's intended scope, e.g., mention of the "sheet of fives" – a student evaluation form used in the School's course curriculum. Finally, the majority of respondents had no suggestions for improvements. Two respondents reported that the survey was bit too long, one suggested emphasizing the survey's focus on perceptions of *current* conditions during survey administration, and two commented on the importance of question four. The suggested emphasis on current conditions was implemented in the administrator's pre-survey script (Appendix G) and within the instrument's overall and scale section instructions. A complete response process study synopsis is provided in Appendix E

Reliability

Reliability is the degree of consistency with which an instrument measures whatever it was intended to measure. Random errors of measurement are the root of reliability problems, and reliability measures are employed to determine the degree of inconsistency in scores caused by random error (Ary, Jacobs, Razavieh, & Sorensen, 2006; Gliem & Gliem, 2003). The instrument must be consistent both in regard to conditions under which it was administered and to the scale's underlying continuum (Oppenheim, 1992). In regard to administration conditions, this

chapter provides a comprehensive review of efforts to remove random error in both instrument design and administration procedures. In regard to the scale's underlying continuum, reliability was demonstrated through statistical analysis of the pilot study data, and then confirmed in final study data.

Due to its prominent use among attitudinal researchers, especially those utilizing Likert scales to quantify constructs of interest (Ary et al., 2006; Gliem & Gliem, 2003), Cronbach's alpha was selected as the reliability procedure for this study. Unlike other widely used reliability tests requiring at least two tests' data, e.g., test-retest and equivalent forms, Cronbach's alpha requires only a single test administration (Ary et al., 2006; Gliem & Gliem, 2003). It provides an estimate of the proportion of the total variance and thereby represents a corresponding measure of the scale's reliability (Oppenheim, 1992).

A Cronbach's alpha coefficient normally ranges between 0 and 1.0; however, there is actually no lower limit to the coefficient (Gliem & Gliem, 2003; George & Mallery, 2003). In general, the closer the coefficient is to 1.0 the greater the internal consistency of the scale items (Ary et al., 2006; Gliem & Gliem, 2003). George and Mallery (2003) offer the following rule of thumb in interpreting coefficient results: "$\geq$ .9 - Excellent, $\geq$ .8 – Good, > .7 – Acceptable, > .6 - Questionable, >.5 – Poor, and <.5 – Unacceptable" (p. 231).

Analysis of the pilot study data (n=37) resulted in .861 and .941 coefficients for the classroom and out-of-classroom scales, respectively. Additionally, item-total statistics were reviewed for items that, if deleted, would increase the coefficient. No items were identified, therefore no alterations were considered.

The final study data (n=136) also exhibited good or excellent internal consistency within the classroom scale (α = .873) and out-of-classroom scale (α = .936), respectively. As a further assessment of reliability, and shown in Table 3-8,Cronbach's alpha was calculated for each stratum (degree-level and location). Alpha values ranged from .800 to .968—all indicating good or excellent internal consistency. The culmination of these analyses provided appropriate evidence of the instrument's reliability.

Table 3-8 Cronbach's Alpha by Stratum

Stratification	Classroom Scale				Out-of-Classroom Scale			
	N_s	M	SD	α	N_s	M	SD	α
Degree-Level								
Associates	40	87.41	8.87	.869	40	88.55	17.69	.968
Bachelors	46	93.07	8.49	.850	46	94.87	9.93	.894
Masters	50	91.68	9.33	.881	50	91.27	12.43	.923
Location								
Area 1	32	91.81	9.59	.892	32	90.41	13.37	.936
Area 2	32	91.52	9.10	.876	32	95.43	10.90	.920
Area 3, Location 1	33	91.94	7.68	.800	33	94.25	12.18	.927
Area 3, Location 2	20	86.89	10.12	.906	20	91.75	12.88	.943
Area 3, Location 3	19	91.50	9.87	.882	19	83.50	17.99	.957
Area 3, All Locations	72	90.51	9.08	.864	72	90.77	14.55	.947

Tests of Normality

Tests for normality were conducted using the Statistical Package for the Social Sciences (SPSS) *explore* function. Both the Kolmogorov-Smirnov and Shapiro-Wilk methods were calculated for each scale, using the scales' respective total as the dependent variable; and age, gender, race/ethnicity, and degree-level as factors.

Evidence of normality is demonstrated when analyses result in p-values ≥ .05—that is to say, based upon the sample data, the population is inferred to be normally distributed when the probability of observing the given sample statistic by chance is greater than or equal to .05. As documented in the analyses below, sample distributions overall did not infer population assumptions required of parametric tests.

Based on both the Kolmogorov-Smirnov (D) and Shapiro-Wilk (W) methods*, classroom* data indicated a normal population distribution (p≥.05) for age, whereas the *out-of-classroom* data did not (Table 3-9). The 26-30 category p-values were <.05 (D=0.188, p=0.004; W=0.877, p=0.001). The histogram and box-plot revealed the category's negatively skewed distribution (-1.217), including one outlier.

Table 3-9 Tests of Normality for Age

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	D	df	p	W	df	p
Classroom						
21-25	0.176	19	0.124	0.968	19	0.736
26-30	0.144	33	0.082	0.968	33	0.423
31-35	0.135	31	0.156	0.967	31	0.453
36-40	0.079	19	0.200[*]	0.980	19	0.939
41-45	0.134	14	0.200[*]	0.963	14	0.768
46-50	0.145	11	0.200[*]	0.954	11	0.692
51-55	0.149	8	0.200[*]	0.959	8	0.804
56-60[b]						
>60[c]						
Out-of-Classroom						
21-25	0.159	19	0.200[*]	0.939	19	0.255
26-30	0.188	33	0.004	0.877	33	0.001
31-35	0.130	31	0.197	0.949	31	0.148
36-40	0.134	19	0.200[*]	0.967	19	0.722
41-45	0.176	14	0.200[*]	0.935	14	0.357
46-50	0.170	11	0.200[*]	0.978	11	0.952
51-55	0.180	8	0.200[*]	0.959	8	0.796

*This is a lower bound of the true significance
[a] Lilliefors Significance Correlation
[b] No respondents
[c] Scale total is constant (1 response)

The *classroom* scale data estimated a normal population distribution (p≥.05) for gender, whereas the *out-of-classroom* data did not (Table 3-10). Specifically, both normality methods resulted in male category null p-values. A review of the histogram and box-plot revealed the male category data as negatively skewed (-1.108), including three outliers.

Table 3-10 Tests of Normality for Gender

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	D	*df*	p	W	*df*	p
Classroom						
Female	0.095	71	0.181	0.986	71	0.625
Male	0.067	65	0.200*	0.974	65	0.193
Out-of-Classroom						
Female	0.105	71	0.052	0.955	71	0.013
Male	0.157	65	0.000	0.916	65	0.000

*This is a lower bound of the true significance
[a] Lilliefors Significance Correlation

With respect to the race/ethnicity factor, the *classroom* scale data again inferred a normal population distribution, with all category p-values ≥.05; whereas the *out-of-classroom* did not. The *out-of-classroom* analysis resulted in p<.05 for the White/Caucasian category (D=0.116, p=0.002; W=0.949, p=0.001) (Table 3-11) The histogram and box-plot revealed negative skewness (-0.747) and contained one outlier.

Table 3-11 Tests of Normality for Race/Ethnicity

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	D	*df*	p	W	*df*	p
Classroom						
American Indian/ Alaskan Native[b]						
Asian/Pacific Islander[c]						
Black/African American	0.085	21	0.200*	.992	21	1.000
Hispanic/Chicano/Latino	0.303	6	0.089	0.827	6	0.101
White/Caucasian	0.085	101	0.070	0.989	101	0.591
Two or more races/ethnicities	0.201	7	0.200*	0.954	7	0.767
Out-of-classroom						
Black/African American	0.145	21	0.200*	0.933	21	0.158
Hispanic/Chicano/Latino	0.228	6	0.200*	0.910	6	0.434
White/Caucasian	0.116	101	0.002	0.949	101	0.001
Two or more races/ethnicities	0.159	7	0.200*	0.966	7	0.868

*This is a lower bound of the true significance
[a] Lilliefors Significance Correlation
[b] Scale total is constant (1 response)
[c] No respondents

The degree-level analysis demonstrated non-normal population distributions for all three categories (Table 3-12). An analysis of the *classroom* data resulted in p<.05 for the associates category (D=0.142; p=0.042), whereas the *out-of-classroom* analysis resulted in p<.05 for both the bachelors (D=0.147, p=0.014; W=0.944, p=0.028) and masters (D=0.127, p=0.042; W=0.900, p=0.000) categories. The associates and bachelors data were negatively skewed (-0.419 and -0.086, respectively) with no outliers; whereas the masters data was more negatively skewed (-1.164) with one outlier.

Table 3-12 Tests of Normality for Degree-Level

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	D	*df*	p	W	*df*	p
Classroom						
Associates	0.142	40	0.042	0.966	40	0.268
Bachelors	0.113	46	0.182	0.948	46	0.039
Masters	0.090	50	0.200*	0.980	50	0.561
Out-of-Classroom						
Associates	0.100	40	0.200*	0.961	40	0.180
Bachelors	0.147	46	0.014	0.944	46	0.028
Masters	0.127	50	0.042	0.900	50	0.000

*This is a lower bound of the true significance
[a] Lilliefors Significance Correlation

Test for Homogeneity of Variance

Tests for homogeneity of variance were conducted using the Levene test. Based upon sample data, the test estimated the population's equality of variance between factors. The null hypothesis of the test is that the population has equal variances. Therefore, p-values <.05 indicate estimates of unequal variance. With the exception of *out-of-classroom* degree-level (W=7.228, p=0.001), all factors evidenced homogeneity of variance (Table 3-13).

Table 3-13 Levene Test of Homogeneity for all Factors

	W	df1	df2	p
Classroom				
Gender	0.001	1	134	0.975
Age	1.437	6	128	0.205
Race/Ethnicity	0.947	3	131	0.420
Degree-Level	0.040	2	131	0.960
Out-of-Classroom				
Gender	0.467	1	134	0.496
Age	0.221	6	128	0.969
Race/Ethnicity	0.571	3	131	0.635
Degree-Level	7.228	2	133	0.001

To summarize parametric assumption tests, results of normality indicated normal population distributions for all *classroom* factors except *degree-level*; whereas all *out-of-classroom* factors indicated non-normal distributions. Homogeneity of variance tests indicated equality of variance for all factors except *out-of-classroom degree-level*. Based on these results, parametric techniques were only appropriate for *classroom age*, *gender*, and *race/ethnicity* factors (Table 3-14). Due to preference for consistent analysis and reporting, non-parametric methods were employed for all analyses.

Table 3-14 Tests of Normality and Homogeneity of Variance Summary

Factor	Normality Tests		Homogeneity of Variance	ANOVA Appropriate?
	Kolmogorov-Smirnov	Shapiro-Wilk		
Classroom				
Gender	Yes	Yes	Yes	Yes
Age	Yes	Yes	Yes	Yes
Race/Ethnicity	Yes	Yes	Yes	Yes
Degree-Level	No	No	Yes	No
Out-of-Classroom				
Gender	No	No	Yes	No
Age	No	No	Yes	No
Race/Ethnicity	No	No	Yes	No
Degree-Level	No	No	No	No

Limitations and Assumptions

Limitations of the study were:

1. Traditionally underrepresented populations (African American, Hispanic, Asian, Indigenous Americans, and socioeconomic disadvantaged) were also under-represented in the study.

2. The reference group effect potentially impacted the study. The reference group effect is the confounding role of context in comparison of mean questionnaire responses across different groups; it is inherent in subjective Likert scales and may conceal differences on a dimension across groups (Heine, Lehman, Peng, & Greenholtz, 2002).

Assumptions of the study were:

1. In an ideal learning environment all learners, regardless of diverse characteristics, should report similar levels of conditions eliciting intrinsic motivation to learn.

2. Respondents accurately and truthfully indicate demographic information.

3. Respondents accurately and truthfully assign levels of agreement or disagreement with Likert statements.

4. Survey responses are independent of one another.

Protection of Human Rights

The research was conducted in accordance with the policies of the Institutional Review Board (IRB) of Kansas State University. Throughout the planning and implementation of this study, and as required by Kansas State University Research Compliance Office (URCO), extensive care was exercised to protect the rights and privacy of study participants. To assure participant understanding of the study's purpose and scope, the instrument administrator adhered to a pre-survey administrator script (Appendix G).

Summary

This study was designed to (a) assess and benchmark current levels of conditions eliciting intrinsic motivation to learn in both CBL classroom and out-of-classroom team learning environments, (b) identify differences in measures across demographic and degree-level categories, (c) identify relationships between measures of conditions and learner-perceived overall level of current learning, and (d) collect specific examples of experiences deemed positively or negatively impacting motivation to learn. The study was facilitated through the creation of The *Motivational Conditions in Learning Instrument*[©]. Potential threats to validity and reliability were mitigated through well-founded research practices and statistical assurance.

CHAPTER 4 - Results

Introduction

This study measured and benchmarked the extent to which adult learners in cohort-based learning (CBL) programs perceived motivational conditions in both their classroom and out-of-classroom team learning environments. Further, the study identified differences in measures across demographic categories and relationships between measures of conditions and learner-perceived level of current learning. Finally, the study collected learners' remarks regarding specific experiences impacting motivation to learn. The study results are reported in this chapter. Sample demographics are first compared to that of the population, followed by analyses of data with respect to research questions and hypotheses described in Chapter Three.

Demographics

In this section, population and sample demographics are reported and compared for each of the independent variables: age, gender, race, and degree-level.

Age

Respondents reported age in years. The researcher then created category intervals facilitating both comparison with the population distribution and effective statistical analysis. As shown in Table 4-1, the proportion of respondents aged 21 to 25 (13.97%) was significantly greater than the population (7.89%), whereas the following three ranks; 26-30 (24.26%), 31-35 (22.79%), and 36-40 (13.97%) were somewhat lower than the population (27.57%, 26.04%, and 14.42%, respectively). All other age ranks were decidedly similar.

Table 4-1 Demographic Data for Age

	Percent of Population[a]	Sample n=136	Percent of Sample
21-25	7.89%	19	13.97%
26-30	27.57%	33	24.26%
31-35	26.04%	31	22.79%
36-40	14.42%	19	13.97%
41-45	10.26%	14	10.29%
46-50	7.46%	11	8.09%
51-55	4.75%	8	5.88%
56-60	1.10%	0	0.00%
>60	.51%	1	.74%
Total	100.00%	136	100.00%

Note: [a] Reported by the School May 24, 2012

Gender

Distribution of the sample by gender compared closely to that of the School's population. As shown in Table 4-2, the proportion of females was slightly lower for the sample (52.21%) than the population (53.01%) whereas proportion of males was slightly higher.

Table 4-2 Demographic Data for Gender

	Percent of Population[a]	Sample n=136	Percent of Sample
Female	53.01%	71	52.21%
Male	46.99%	65	47.79%
Total	100.00%	136	100.00%

Note: [a] Reported by the School May 24, 2012

Race/Ethnicity

Distribution of the sample by race/ethnicity is shown in Table 4-3. Respondents reported race/ethnicity by category. The presented categories adhered to the National Center for Educational Statistics *Standards for Defining Race and Ethnicity Data* (2008). American Indian/Alaskan Native students were significantly underrepresented in both the sample (.74%) and population (1.70%). Asian/Pacific Islander students were not represented in the sample and significantly underrepresented in the population (1.87%). Black/African American (15.44%),

Hispanic/Chicano/Latino (4.41%), and those reporting "two or more races/ethnicities" (5.15%) were better represented in the sample than in the population (11.70%, 1.87%, 1.95%, respectively).

Table 4-3 Demographic Data for Race/Ethnicity

	Percent of Population[a]	Sample n=136	Percent of Sample
American Indian/Alaskan Native	1.70%	1	0.74%
Asian/Pacific Islander	1.87%	0	0.00%
Black/African American	11.70%	21	15.44%
Hispanic/Chicano/Latino	1.87%	6	4.41%
White/Caucasian	71.84%	101	74.26%
Two or more races/ethnicities	1.95%	7	5.15%
Other	1.02%	0	0.00%
Not specified or "unknown"	8.06%	0	0.00%
Total	100.00%	136	100.00%

Note: [a] Reported by the School May 24, 2012

Degree-level

As shown in Table 4-4, the proportion of associates (29.41%) students was somewhat greater in the sample than in the population (26.80%). Conversely, the proportions of bachelors (33.28%) and masters (36.76%) students were somewhat less than in the population (33.42% and 39.78%, respectively).

Table 4-4 Demographic Data for Degree-Level

	Percent of Population[a]	Sample n=136	Percent of Sample
Associates	26.80%	40	29.41%
Bachelors	33.42%	46	33.28%
Masters	39.78%	50	36.76%
Total	100.00%	136	100.00%

Note: [a] Reported by the School May 24, 2012

Analysis

This study measured, benchmarked, and investigated diverse adult learners' perceptions of current conditions eliciting intrinsic motivation to learn in classroom and out-of-classroom environments. The research was guided by four research questions. The first two questions examined differences in measures across demographic categories, whereas the third examined relationships between measures of conditions and learner-perceived level of overall learning. These three questions were analyzed through quantitative methods. The final research question sought insight into learner experiences, deemed positively or negatively impacting motivation, and was analyzed through qualitative analysis.

Research Question One – Classroom

Research question one sought to determine if current levels of learner-perceived motivational conditions in *classroom* environments differed across demographic categories. For each independent variable, this section first describes scale and inherent subscale (inclusion, attitude, meaning, and competence) results and then statistical analysis. The non-parametric Mann-Whitney U test, similar to the parametric independent sample t-test, was employed for two-category comparisons. The non-parametric Kruskal-Wallis test (H), similar to the parametric ANOVA, was employed for comparisons between greater than two categories. As a precursory reference, Table 4-5 provides score parameters.

Table 4-5 Scale and Subscale Score Parameters - Classroom

Scale/Subscale	Instrument Statements[*]	Score Parameters		
		MIN	$\bar{x}$	*MAX*
Classroom		23	69	115
Inclusion	2.1, 2.5, 2.7, 2.12, 2.14, 2.18, 2.20, 2.22	8	24	40
Attitude	2.6, 2.8, 2.15, 2.21, 2.23	5	15	25
Meaning	2.2, 2.3, 2.9, 2.11, 2.16, 2.17, 2.19	7	21	35
Competence	2.4, 2.10, 2.13	3	9	15

* Provided in Appendix D, the survey instrument contains parenthetical statement number references.

Analysis of Age

As shown in Table 4-6, the lowest *overall* mean occurred in the 26-30 age category ($\bar{x}$ =90.97); and the highest in the 41-45 age category ($\bar{x}$ =97.14). The greatest standard error occurred in the 51-55 age category (SEM=5.142).

Table 4-6 Descriptive Statistics for Age - Classroom

Scale	n	% of Total	$\bar{x}$	M	SEM
Classroom	136	100.0%	93.97	94.00	0.850
21-25	19	14.0%	95.89	96.00	1.656
26-30	33	24.3%	90.97	91.00	1.949
31-35	31	22.8%	93.23	93.00	1.488
36-40	19	14.0%	96.84	96.00	2.414
41-45	14	10.3%	97.14	96.00	1.952
46-50	11	8.1%	93.45	92.00	3.545
51-55	8	5.9%	93.13	94.50	5.142
56-60	1	0.7%	93.00	93.00	--

Containing 23 5-point statements, the maximum *Classroom* scale score is 115.

Due to small sample sizes of the last three age categories (46-50: 11; 51-55: 8; 56-60: 1), the Kruskall-Wallis test was conducted after collapsing ages 41-60 into one category. Collapsing ordinal data can increase the interpretability of results and analysis (Huck, 2004). Because the age variable was evaluated as an ordinal measure—implied ranking with no distinction of magnitude between levels—recategorization was within nonparametric test conventions (Huck, 2004). Descriptive statistics for recategorized age are provided in Table 4-7 below.

Table 4-7 Descriptive Statistics for Age (Recategorized) - Classroom

Scale	n	% of Total	$\bar{x}$	M	SEM
Classroom	136	100.0%	93.97	94.00	0.850
21-25	19	14.0%	95.89	96.00	1.656
26-30	33	24.3%	90.97	91.00	1.949
31-35	31	22.8%	93.23	93.00	1.488
36-40	19	14.0%	96.84	96.00	2.414
41-60	34	25.0%	94.88	95.00	1.811

Containing 23 5-point statements, the maximum *Classroom* scale score is 115.

As shown in Table 4-8, there were no significant differences in *overall* (H=6.259, p=0.181) means. However, one significant result (H=9.651, p=0.047) occurred within the *classroom meaning* subscale. Post hoc analyses included Mann-Whitney pairwise analysis to determine between which categories differences existed. The combined review of descriptive statistics (Table 4-9) and Mann-Whitney analyses (Table 4-10) evidenced significantly lower *meaning* scores for the 26-30 age group ($\bar{x}$ =11.94) than both the 21-25 ($\bar{x}$ =12.67, p=0.039) and 36-40 ($\bar{x}$ =12.47, p=0.008) age groups.

Table 4-8 Differences by Age (Recategorized) - Classroom Scale and Subscales

Scale	Subscale	df	H	p	$\bar{x}$
Classroom		4	6.259	0.181	93.97
	Inclusion	4	6.427	0.169	32.65
	Attitude	4	2.480	0.648	19.54
	Meaning	4	9.651	0.047	26.30
	Competence	4	4.871	0.301	12.37

Table 4-9 Descriptive Statistics for Age (Recategorized) –
Classroom, Meaning Subscale

Scale/Subscale	n	% of Total	$\bar{x}$	M	SEM
Classroom/Meaning	131	100.0%	26.30	26.00	0.282
21-25	19	14.0%	12.67	13.00	0.454
26-30	33	24.3%	11.94	12.00	0.301
31-35	31	22.8%	12.35	13.00	0.313
36-40	19	14.0%	12.47	12.00	0.345
41-60	34	25.0%	12.73	12.00	0.244

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing seven 5-point statements, the maximum *Classroom Meaning* score is 35.

Table 4-10 Differences by Age (Recategorized) - Classroom, Meaning Subscale

Scale/Subscale	Pairwise Categories	*U*	*p*
Classroom/Meaning			
	21-25 and 26-30	205.5	0.039
	21-25 and 31-35	239.0	0.556
	21-25 and 36-40	225.5	0.184
	21-25 and 41-60	289.0	0.768
	26-30 and 31-35	561.5	0.148
	26-30 and 36-40	453.0	0.008
	26-30 and 41-60	671.5	0.058
	31-35 and 36-40	334.0	0.138
	31-35 and 41-60	464.0	0.812
	36-40 and 41-60	226.0	0.126

Analysis of Gender

As shown in Table 4-11, *overall* scale and all subscale mean scores were higher for females ($\bar{x}$ =95.25) than males ($\bar{x}$ =92.57).

Table 4-11 Descriptive Statistics for Gender – Classroom Scale and Subscales

Scale	Subscale	n	% of Total	$\bar{x}$	*M*	*SEM*
Classroom		136	100.0%	93.97	94.00	0.850
Female		71	52.2%	95.25	96.00	1.179
Male		65	47.8%	92.57	94.00	1.210
	Inclusion	134	100.0%	32.65	33.00	0.308
	Female	71	53.0%	32.92	33.00	0.438
	Male	63	47.0%	32.35	32.00	0.432
	Attitude	136	100.0%	19.54	20.00	0.210
	Female	71	52.2%	19.99	20.00	0.270
	Male	65	47.8%	19.05	19.00	0.316
	Meaning	131	100.0%	26.30	26.00	0.282
	Female	68	51.9%	26.69	26.50	0.400
	Male	63	48.1%	25.87	26.00	0.393
	Competence	136	100.0%	12.37	12.00	0.143
	Female	71	52.2%	12.52	12.00	0.191
	Male	65	47.8%	12.20	12.00	0.214

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing 23 5-point statements, the *Classroom* scale maximum score is 115. Maximum subscale scores are *Inclusion* – 40, *Attitude* – 25, *Meaning* – 35, and *Competence* – 15.

There were no significant differences between female and male *overall* (U=5172.5, p=0.178) means (Table 4-12). However, females rated the *attitude* condition significantly higher (U=2801, p=0.030) than males.

Table 4-12 Differences by Gender – Classroom Scale and Subscales

Scale	Subscale	U	p	$\bar{x}$
Classroom		5172.5	0.178	93.97
	Inclusion	2429.0	0.388	32.65
	Attitude	2801.0	0.030	19.54
	Meaning	2369.5	0.292	26.30
	Competence	2599.5	0.193	12.37

Analysis of Race/Ethnicity

As shown in Table 4-13, the highest *overall* means occurred in the Black/African American ($\bar{x}$=96.05) and Hispanic/Chicano/Latino ($\bar{x}$=95.17) categories. The greatest standard error occurred in the "two or more races/ethnicities" category (SEM=5.657).

Table 4-13 Descriptive Statistics for Race/Ethnicity - Classroom

Scale	n	% of Total	$\bar{x}$	M	*SEM*
Classroom	136	100.0%	93.97	94.00	0.850
American Indian/ Alaskan Native	1	0.7%	93.00	93.00	--
Black/African American	21	15.4%	96.05	96.00	2.017
Hispanic/Chicano/Latino	6	4.4%	95.17	88.50	4.868
White/Caucasian	101	74.3%	93.34	94.00	0.961
Two or more races/ethnicities	7	5.1%	96.00	96.00	5.657

Containing 23 5-point statements, the *Classroom* scale maximum score is 115.

There were no significant differences between race/ethnicity categories (Table 4-14).

Table 4-14 Differences by Race/Ethnicity - Classroom

Scale	*df*	*H*	*p*	$\bar{x}$
Classroom	4	1.633	.803	93.97

81

Due to small sample sizes of underrepresented categories, the analysis was repeated comparing the predominant (White/Caucasian) category with aggregate underrepresented (American Indian/Alaskan Native, Black/African American, Hispanic/Chicano/Latino, two or more races/ethnicities) categories. The recategorized distribution is described and analyzed in tables 4-15 and 4-16.

**Table 4-15 Descriptive Statistics for Race/Ethnicity (Recategorized) –
Classroom Scale and Subscales**

Scale	Subscale	n	% of Total	$\bar{x}$	M	SEM
Classroom		136	100.0%	93.97	94.00	0.850
Predominant (White/Caucasian)		101	74.3%	93.34	94.00	0.961
Aggregate Underrepresented (American Indian/Alaskan Native, Black/African American, Hispanic/Chicano/Latino, Two or more races/ethnicities)		35	25.7%	95.80	95.00	1.781
	Inclusion	134	100.0%	32.65	33.00	0.308
	Predominant	100	74.6%	32.63	33.00	0.336
	Underrepresented	34	25.4%	32.71	32.50	0.718
	Attitude	136	100.0%	19.54	20.00	0.210
	Predominant	101	74.3%	19.24	19.00	0.243
	Underrepresented	35	25.7%	20.40	20.00	0.387
	Meaning	131	100.0%	26.30	26.00	0.282
	Predominant	96	73.3%	26.23	26.00	0.330
	Underrepresented	35	26.7%	26.49	26.00	0.549
	Competence	136	100.0%	12.37	12.00	0.143
	Predominant	101	74.5%	12.14	12.00	0.167
	Underrepresented	35	25.7%	13.03	13.00	0.251

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing 23 5-point statements, the *Classroom* scale maximum score is 115. Maximum subscale scores are *Inclusion* – 40, *Attitude* – 25, *Meaning* – 35, and *Competence* – 15.

As shown in Table 4-16, a non-significant difference (U=1556.5, p=.293) existed in the *overall* scale, whereas significant differences were identified in the *attitude* (U=1336.5, p=0.030) and *competence* (U=1228.5, p=0.006) subscales. In each instance, means were significantly higher for the underrepresented category than for the predominant category.

Table 4-16 Differences by Race/Ethnicity (Recategorized) - Classroom

Scale	Subscale	U	p	$\bar{x}$
Classroom		1556.5	0.293	93.97
	Inclusion	1668.0	0.869	32.65
	Attitude	1336.5	0.030	19.54
	Meaning	1624.0	0.770	26.30
	Competence	1228.5	0.006	12.37

Analysis of Degree-level

As shown in Tables 4-17, the lowest scale and subscale means were found in the associates-level category. In every scale and subscale analysis, the lowest means were in the associates-level category, whereas the highest were found in the bachelors-level category. Standard errors of the means were reasonably consistent across all analyses.

Table 4-17 Descriptive Statistics for Degree-Level - Classroom

Scale	Subscale	n	% of Total	$\bar{x}$	M	SEM
Classroom		136	100.0%	93.97	94.00	0.850
Associates		40	29.4%	89.60	91.00	1.502
Bachelors		46	33.8%	96.30	96.00	1.405
Masters		50	36.8%	95.32	95.00	1.362
	Inclusion	134	100.0%	32.65	33.00	0.308
	Associates	40	29.9%	30.65	31.00	0.595
	Bachelors	46	34.3%	33.15	33.00	0.469
	Masters	48	35.8%	33.83	33.50	0.445
	Attitude	136	100.0%	19.54	20.00	0.210
	Associates	40	29.4%	18.82	19.00	0.343
	Bachelors	46	33.8%	20.04	20.00	0.346
	Masters	50	36.8%	19.64	20.00	0.374
	Meaning	131	100.0%	26.30	26.00	0.282
	Associates	37	28.2%	25.22	26.00	0.531
	Bachelors	45	34.4%	26.84	26.00	0.493
	Masters	49	37.4%	26.61	27.00	0.429
	Competence	136	100.0%	12.37	12.00	0.143
	Associates	40	29.4%	12.23	12.00	0.222
	Bachelors	46	33.8%	12.93	13.00	0.214
	Masters	50	36.8%	11.96	12.00	0.271

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing 23 5-point statements, the *Classroom* scale maximum score is 115. Maximum subscale scores are *Inclusion* – 40, *Attitude* – 25, *Meaning* – 35, and *Competence* – 15.

Significant differences between degree-level were identified in the *overall* scale (H=9.710, p=0.008) and two subscales: *inclusion* (H=16.027, p=0.000), and *competence* (H=7.159, p=0.028) (Table 4-18).

Table 4-18 Differences by Degree-Level - Classroom Scale and Subscales

Scale	Subscale	df	H	p	$\bar{x}$
Classroom		2	9.710	0.008	93.97
	Inclusion	2	16.027	0.000	32.65
	Attitude	2	5.955	0.051	19.54
	Meaning	2	4.060	0.131	26.30
	Competence	2	7.159	0.028	12.37

To better understand the differences exhibited in the *overall scale, and inclusion* and *competence* subscales, scores were further analyzed to determine between which degree-levels the differences existed. The Mann-Whitney test was conducted to analyze each pair of degree-level scores (associates-bachelors, associates-masters, and bachelors-masters). As shown in Table 4-19, associates-level *overall* means were significantly lower than both bachelors-level (U=1233.0, p=0.007) and masters-level (U=1338.0, p=0.006) means. Likewise, associates-level *inclusion* means were significantly lower than both bachelors-level (U=1262.0, p=0.003) and masters-level (U=1414.0, p=0.000); and *competence* lower than bachelors-level (U=1149.5, p=0.041). Masters-level *competence* means were also lower than bachelors-level (U=821.0, p=0.014).

Table 4-19 Differences by Degree-Level -
Classroom Scale, Inclusion and Competence Subscales

Scale/Subscale	Pairwise Categories	*U*	*p*
Classroom	Associates-Bachelors	1233.0	0.007
	Associates-Masters	1338.0	0.006
	Bachelors-Masters	1121.0	0.831
Classroom/Inclusion	Associates-Bachelors	1262.0	0.003
	Associates-Masters	1414.0	0.000
	Bachelors-Masters	1234.0	0.322
Classroom/Competence	Associates-Bachelors	1149.5	0.041
	Associates-Masters	929.0	0.554
	Bachelors-Masters	821.0	0.014

Research Question One –Summary

- Associate-level students rated *overall classroom* conditions significantly lower than bachelors and masters-level students.
- Females rated *attitude* conditions significantly higher than males
- Students aged 26 to 30 years rated *meaning* conditions significantly lower than students aged 21 to 25 and 36 to 40 years
- Underrepresented students, as a combined category, rated *attitude* and *competence* significantly higher than predominant category students

- Associates-level students rated *inclusion* significantly lower than both bachelors and masters-level students
- Both associates and masters-level students rated *competence* significantly lower than bachelors-level students

Research Question Two – Out-of-Classroom

Research question two sought to determine if current levels of learner-perceived motivational conditions in *out-of-classroom* environments differed across demographic categories. For each independent variable, this section first describes scale and inherent subscale (inclusion, attitude, meaning, and competence) results and then statistical analysis. The non-parametric Mann-Whitney U test, similar to the parametric independent sample t-test, was employed for two-category comparisons. The non-parametric Kruskal-Wallis test (H), similar to the parametric ANOVA, was employed for comparisons between greater than two categories. As a precursory reference, Table 4-20 provides score parameters.

Table 4-20 Scale and Subscale Score Parameters - Out-of-Classroom

Scale/Subscale	Instrument Statements[*]	Score Parameters		
		MIN	$\bar{x}$	*MAX*
Out-of-Classroom		23	69	115
Inclusion	3.1, 3.2, 3.6, 3.9, 3.18, 3.20, 3.21, 3.23	8	24	40
Attitude	3.8, 3.11, 3.13, 3.17, 3.22	5	15	25
Meaning	3.3, 3.4, 3.7, 3.10, 3.14, 3.15, 3.16	7	21	35
Competence	3.5, 3.12, 3.19	3	9	15

Analysis of Age

Similar to the classroom scale, the lowest *overall* mean occurred in the 26-30 age category ($\bar{x}$ =88.36) and the greatest standard error occurred in the 51-55 age category (SEM=3.976). Dissimilar to the classroom scale, the highest *overall* mean occurred in the 51-55 age category ($\bar{x}$ =97.75) (Table 4-21.)

Table 4-21 Descriptive Statistics for Age - Out-of-Classroom

Scale	n	% of Total	$\bar{x}$	M	SEM
Out-of-classroom	136	100.0%	91.38	91.00	1.162
21-25	19	14.0%	93.53	93.00	3.251
26-30	33	24.3%	88.36	90.00	2.857
31-35	31	22.8%	89.68	90.00	2.269
36-40	19	14.0%	93.37	95.00	2.685
41-45	14	10.3%	92.00	90.50	3.246
46-50	11	8.1%	92.82	91.00	3.811
51-55	8	5.9%	97.75	98.00	3.976
56-60	1	0.7%	89.00	89.00	--

Containing 23 5-point statements, the *Out-of-Classroom* scale maximum score is 115.

Due to small sample sizes of the last three age categories (46-50: 11; 51-55: 8; 56-60: 1), the Kruskall-Wallis test was conducted after collapsing ages 41-60 into one category. Descriptive statistics for recategorized age are provided in Table 4-22 and 4-23.

Table 4-22 Descriptive Statistics for Age (Recategorized) - Out-of-Classroom

Scale	n	% of Total	$\bar{x}$	M	SEM
Out-of-classroom	136	100.0%	91.38	91.00	1.162
21-25	19	14.0%	93.53	93.00	3.251
26-30	33	24.3%	88.36	90.00	2.857
31-35	31	22.8%	89.68	90.00	2.269
36-40	19	14.0%	93.37	95.00	2.685
41-45	34	25.0%	93.53	91.00	2.025

Containing 23 5-point statements, the *Out-of-Classroom* scale maximum score is 115.

As shown in Table 4-23, there were no significant differences in *overall* means (H=2.780, p=0.595).

Table 4-23 Differences by Age (Recategorized) - Out-of-Classroom Scale and Subscales

Scale	Subscale	df	H	p	$\bar{x}$
Out-of-Classroom		4	2.780	0.595	91.38
	Inclusion	4	4.383	0.357	33.67
	Attitude	4	2.870	0.580	19.54
	Meaning	4	4.488	0.344	26.61
	Competence	4	2.706	0.608	11.81

Analysis of Gender

The *overall* scale and all subscale means were higher for females ($\bar{x}$ =92.28) than males ($\bar{x}$ =90.38) (Table 4-24).

Table 4-24 Descriptive Statistics for Gender - Out-of-Classroom Scale and Subscales

Scale	Subscale	n	% of Total	$\bar{x}$	M	SEM
Out-of-classroom		136	100.0%	91.38	91.00	1.162
Female		71	52.2%	92.28	91.00	1.591
Male		65	47.8%	90.38	91.00	1.705
	Inclusion	135	100.0%	33.67	34.00	0.427
	Female	70	51.9%	33.83	33.50	0.609
	Male	65	48.1%	33.49	34.00	0.600
	Attitude	134	100.0%	19.54	20.00	0.276
	Female	70	52.2%	19.74	20.00	0.382
	Male	64	47.8%	19.33	20.00	0.401
	Meaning	135	100.0%	26.61	27.00	0.360
	Female	71	52.6%	27.13	27.00	0.470
	Male	64	47.4%	26.03	26.00	0.546
	Competence	134	100.0%	11.81	12.00	0.203
	Female	69	51.5%	11.90	12.00	0.279
	Male	65	48.5%	11.72	12.00	0.298

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing 23 5-point statements, the *Out-of-Classroom* scale maximum score is 115. Maximum subscale scores are *Inclusion* – 40, *Attitude* – 25, *Meaning* – 35, and *Competence* – 15.

There were no significant differences between females and males in *overall* (U=2468.0, p=0.484) or any subscales (Table 4-25).

Table 4-25 Differences by Gender - Out-of-Classroom Scale and Subscales

Scale	Subscale	U	p	$\bar{x}$
Out-of-classroom		2468.0	0.484	91.38
	Inclusion	2418.0	0.527	33.67
	Attitude	2364.0	0.578	19.54
	Meaning	2637.5	0.106	26.61
	Competence	2328.5	0.697	11.81

Analysis of Race/Ethnicity

Mirroring the classroom scale, the highest *overall* means (Table 4-26) occurred in the Black/African American ($\bar{x}$ =95.90) and Hispanic/Chicano/Latino ($\bar{x}$ =97.83) categories; and the greatest standard error occurred in the "two or more races/ethnicities" category (SEM=2.995).

Table 4-26 Descriptive Statistics for Race/Ethnicity - Out-of-Classroom

Scale	n	% of Total	$\bar{x}$	*M*	*SEM*
Out-of-Classroom	136	100.0%	91.38	91.00	1.162
American Indian/ Alaskan Native	1	0.7%	87.00	87.00	--
Black/African American	21	15.4%	95.90	95.00	2.329
Hispanic/Chicano/Latino	6	4.4%	97.83	99.50	4.143
White/Caucasian	101	74.3%	89.78	90.00	1.426
Two or more races/ethnicities	7	5.1%	95.86	95.00	2.995

Containing 23 5-point statements, the *Out-of-Classroom* scale maximum score is 115.

There were no significant differences between race/ethnicity categories (Table 4-27).

Table 4-27 Differences by Race/Ethnicity - Out-of-Classroom

Scale	*df*	*H*	*p*	$\bar{x}$
Out-of-classroom	4	6.376	.173	91.38

Due to small sample sizes of underrepresented categories, the analysis was repeated comparing the predominant (White/Caucasian) category with aggregate underrepresented

(American Indian/Alaskan Native, Black/African American, Hispanic/Chicano/Latino, two or more races/ethnicities) categories. The recategorized distribution is described and analyzed in tables 4-28 and 4-29.

Table 4-28 Descriptive Statistics for Race/Ethnicity (Recategorized) - Out-of-Classroom Scale and Subscales

Scale	Subscale	n	% of Total	$\bar{x}$	M	SEM
Out-of-Classroom		136	100.0%	91.38	91.00	1.162
Predominant (White/Caucasian)		101	74.3%	89.78	90.00	1.426
Aggregate Underrepresented (American Indian/Alaskan Native, Black/African American, Hispanic/Chicano/Latino, Two or more races/ethnicities)		35	25.7%	95.97	95.00	1.658
	Inclusion	135	100.0%	33.67	34.00	0.427
	Predominant	101	74.8%	33.22	33.00	0.530
	Underrepresented	34	25.2%	35.00	35.00	0.579
	Attitude	134	100.0%	19.54	20.00	0.276
	Predominant	100	74.6%	19.21	20.00	0.328
	Underrepresented	34	25.4%	20.53	21.00	0.472
	Meaning	135	100.0%	26.61	27.00	0.360
	Predominant	100	74.1%	26.03	26.00	0.447
	Underrepresented	35	25.9%	28.26	28.00	0.444
	Competence	134	100.0%	11.81	12.00	0.203
	Predominant	100	74.6%	11.48	12.00	0.238
	Underrepresented	34	25.4%	12.79	13.00	0.340

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing 23 5-point statements, the *Out-of-Classroom* scale maximum score is 115. Maximum subscale scores are *Inclusion – 40, Attitude – 25, Meaning – 35,* and *Competence – 15*

As shown in Table 4-29, a significant difference existed in the *overall* scale (U=2223.0; p=0.023), as well as *attitude* (U=1273.0; p=0.028), *meaning* (U=1192; p=0.005), and *competence* (U=1154.5; p=0.005) subscales. In each instance, means were significantly higher for the underrepresented category than for the predominant category.

Table 4-29 Differences by Race/Ethnicity (Recategorized) - Out-of-Classroom

Scale	Subscale	U	p	$\bar{x}$
Out-of-Classroom		2233.0	0.023	91.38
	Inclusion	1432.0	0.147	33.67
	Attitude	1273.0	0.028	19.54
	Meaning	1192.0	0.005	26.61
	Competence	1154.5	0.005	11.81

Analysis of Degree-level

The lowest scale and subscale means were found in the associates-level category. In every scale and subscale analysis, except *competence*, the lowest means were in the associates-level category (Table 4-30). Conversely, the highest scale and subscale means were found in the bachelors-level category. Standard errors of the means were reasonably consistent across all analyses.

Table 4-30 Descriptive Statistics for Degree-Level - Out-of-Classroom

Scale	Subscale	n	% of Total	$\bar{x}$	M	SEM
Out-of-Classroom		136	100.0%	91.38	91.00	1.162
Associates		40	29.4%	87.93	90.50	2.760
Bachelors		46	33.8%	94.87	93.00	1.464
Masters		50	36.8%	90.92	90.00	1.742
	Inclusion	135	100.0%	33.67	34.00	0.427
	Associates	39	28.9%	32.10	33.00	1.000
	Bachelors	46	34.1%	34.85	35.50	0.572
	Masters	50	37.0%	33.80	33.00	0.632
	Attitude	134	100.0%	19.54	20.00	0.276
	Associates	39	29.1%	18.87	19.00	0.647
	Bachelors	46	34.3%	20.24	20.00	0.390
	Masters	49	36.6%	19.43	20.00	0.404
	Meaning	135	100.0%	26.61	27.00	0.630
	Associates	39	28.9%	26.23	27.00	0.830
	Bachelors	46	34.1%	27.39	27.00	0.470
	Masters	50	37.0%	26.18	27.00	0.578
	Competence	134	100.0%	11.81	12.00	0.203
	Associates	39	29.1%	11.26	12.00	0.454
	Bachelors	46	34.3%	12.39	12.00	0.263
	Masters	49	36.6%	11.71	12.00	0.332

Note: Variation between the scale and subscale n value results from elimination of incomplete records during statistical calculation. Containing 23 5-point statements, the *Out-of-Classroom* scale maximum score is 115. Maximum subscale scores are *Inclusion* – 40, *Attitude* – 25, *Meaning* – 35, and *Competence* – 15

There were no significant differences identified in the *overall* scale or any subscales (Table 4-31).

Table 4-31 Differences by Degree-Level - Out-of-Classroom

Scale	Subscale	df	H	p	$\bar{x}$
Out-of-classroom		2	4.397	0.111	91.38
	Inclusion	2	4.476	0.107	33.67
	Attitude	2	2.372	0.305	19.54
	Meaning	2	1.478	0.478	26.61
	Competence	2	3.902	0.142	11.81

Research Question Two – Summary

- Underrepresented students, as a combined category, rated *overall* conditions significantly higher than predominant category students.

- Underrepresented students, as a combined category, rated attitude, meaning, and competence significantly higher than predominant category students

Research Question Three – Condition Correlation with Current Learning

The third research question asked which scale, classroom or out-of-classroom, more closely correlated with perceptions of overall current learning. This section reports correlation analysis of 113 records contained in the original data set. Of the 136 records analyzed in the previous section, 23 were eliminated as a result of non-response to the *overall current level of learning* statement.

The Spearman's rho (r_s) test was selected for correlation analysis. It is an appropriate test for non-parametric data and is similar to the Pearson's Product Moment correlation coefficient (Huck, 2004). The test results in a value indicating relative strength and direction of association between two variables. Dissimilar to the Pearson's Product Moment, the analysis produces rank-order rather than continuous values (Huck, 2004). Therefore, squaring the resulting value for coefficient of determination was not warranted. Following are correlation results for overall scale and subscale, by age, gender, race/ethnicity, and degree-level subsamples.

As Shown in Table 4-32, both overall scales and all subscales evidenced significant ($p<.05$) positive correlation with learner's perceptions of overall level of current learning (perceived learning). The *overall classroom* scale demonstrated considerably stronger correlation ($r_s=0.553$, $p=0.000$) with perceived learning than did the *overall out-of-classroom* scale ($r_s=0.292$, $p=0.002$). Of all subscales, *meaning* demonstrated the strongest correlation within both the *classroom* ($r_s=0.491$, $p=0.000$) and *out-of-classroom* ($r_s=0.363$, $p=0.000$) scales.

Table 4-32 Correlation with Overall Learning - Scale and Subscale

Scale	Subscale	r_s	p
Classroom		0.553	0.000
	Inclusion	0.268	0.004
	Attitude	0.445	0.000
	Meaning	0.491	0.000
	Competence	0.390	0.000
Out-of-classroom		0.292	0.002
	Inclusion	0.226	0.017
	Attitude	0.275	0.003
	Meaning	0.363	0.000
	Competence	0.330	0.000

Relationships with Age Subsamples

In review of age subsample correlations, and consistent with the overall sample and gender subsamples, the *overall classroom* scale more closely correlated with perceived learning than did the *overall out-of-classroom* scale for all age ranks (Table 4-33). For the youngest subsample (21-30, n_s =42), *competence* subscales most closely correlated with perceived learning (*classroom* r_s=0.542, p=0.000; *out-of-classroom* r_s=0.445, p=0.003). For the next age subsample (31-40, n_s =44), the *classroom attitude* subscale (r_s=0.572, p=0.000) and *out-of-classroom meaning* subscale (r_s=0.452, p=0.023) were those most correlated with perceived learning. There were no significant correlations in the eldest age group (>40, n_s =27). It was noted, however, that the smaller n of this subsample may have impacted the result.

Within the youngest age subsample (21-30, n_s =42) all subscale correlations with perceived learning were significantly positive with the exception of *classroom inclusion* (r_s=0.133, p=0.401). Similarly, within the next age subsample (31-40, n_s =44), all subscale correlations were significantly positive with one exception: *out-of-classroom inclusion* (r_s=0.212, p=0.166).

Table 4-33 Correlation with Overall Learning - Age

Scale	Subscale	All (n=113)		21-30 (n$_s$ =42)		31-40 (n$_s$ =44)		>40 (n$_s$ =27)	
		r_s	p	r_s	p	r_s	p	r_s	p
Classroom		0.553	0.007	0.529	0.000	0.699	0.000	0.299	0.130
	Inclusion	0.268	0.004	0.133	0.401	0.481	0.001	0.177	0.377
	Attitude	0.445	0.000	0.475	0.001	0.572	0.000	0.203	0.310
	Meaning	0.491	0.000	0.497	0.001	0.424	0.004	0.312	0.120
	Competence	0.390	0.000	0.542	0.000	0.519	0.001	0.063	0.756
Out-of-classroom		0.292	0.006	0.375	0.014	0.374	0.012	0.006	0.978
	Inclusion	0.226	0.017	0.325	0.036	0.212	0.166	0.145	0.480
	Attitude	0.275	0.003	0.319	0.040	0.358	0.019	0.079	0.700
	Meaning	0.363	0.000	0.394	0.010	0.452	0.002	0.118	0.567
	Competence	0.330	0.000	0.445	0.003	0.346	0.023	0.089	0.664

Relationships with Gender Subsamples

Similar to the entire sample, and demonstrated in Table 4-34, both male (n$_s$ =54, r_s=0.661, p=0.000) and female (n$_s$ =59, r_s=0.459, p=0.000) subsample *overall classroom* scales correlated more closely with perceived learning than respective *overall out-of-classroom* scales (male r_s=0.375, p=0.005; female r_s=0.218, p=0.097). The *meaning* subscale demonstrated stronger correlation than any other subscale within both the *classroom* (male r_s=0.615, p=0.000; female r_s=0.380, p=0.004) and *out-of-classroom* (male r_s=0.422, p=0.022; female r_s=0.297, p=0.022) scales.

Within the female subsample, all *classroom* subscale correlations were significant (p<.05) with the exception of *inclusion* (r_s=0.204, p=0.121), whereas all *out-of-classroom* subscale correlations were insignificant with the exception of *meaning* (r_s=0.297, p=.022). Conversely, within the male subsample, all *classroom* and *out-of-classroom* subscales were significantly correlated with perceived learning (Table 4-34).

Table 4-34 Correlation with Overall Learning - Gender

		All (n=113)		Female (n$_s$=59)		Male (n$_s$=54)	
Scale	Subscale	r_s	p	r_s	p	r_s	p
Classroom		0.553	0.007	0.459	0.000	0.661	0.000
	Inclusion	0.268	0.004	0.204	0.121	0.371	0.007
	Attitude	0.445	0.000	0.359	0.005	0.546	0.000
	Meaning	0.491	0.000	0.380	0.004	0.615	0.000
	Competence	0.390	0.000	0.331	0.010	0.456	0.001
Out-of-classroom		0.292	0.006	0.218	0.097	0.375	0.005
	Inclusion	0.226	0.017	0.147	0.270	0.325	0.016
	Attitude	0.275	0.003	0.257	0.052	0.300	0.029
	Meaning	0.363	0.000	0.297	0.022	0.422	0.002
	Competence	0.330	0.000	0.251	0.060	0.417	0.002

Relationships with Race/Ethnicity Subsamples

Consistent with the previous correlation analyses, and demonstrated in Table 4-35, both predominant (n$_s$=86, r$_s$=0.536, p=0.000) and underrepresented (n$_s$=27, r$_s$=0.459, p=0.000) subsample *overall classroom* scales more closely correlated with perceived learning than respective *overall out-of-classroom* scales (predominant r$_s$=0.283, p=0.008; underrepresented r$_s$=0.258, p=0.194). The *meaning* subscale correlated most strongly with perceived learning for both subsamples and within both scales: predominant (*classroom* r$_s$=0.495, p=0.000; *out-of-classroom* r$_s$=0.342, p=0.001) and underrepresented (*classroom* r$_s$=0.469, p=0.014; *out-of-classroom* r$_s$=0.387, p=0.046).

Within the predominant subsample, all subscale correlations were significant with the exception of *classroom* and *out-of-classroom inclusion* (r$_s$=0.204, p=0.061 and r$_s$=0.199, p=.066, respectively). Conversely, within the underrepresented subsample, all subscale correlations were insignificant with the exception of *classroom inclusion* (r$_s$=0.410, p=0.037), *classroom meaning* (r$_s$=0.469, p=0.014), and *out-of-classroom meaning* (r$_s$=0.387, p=0.046).

Table 4-35 Correlation with Overall Learning - Race Ethnicity

Scale	Subscale	All (n=113)		Predominant (n_s =86)		Underrepresented (n_s =27)	
		r_s	p	r_s	p	r_s	p
Classroom		0.553	0.007	0.536	0.000	0.491	0.009
	Inclusion	0.268	0.004	0.204	0.061	0.410	0.037
	Attitude	0.445	0.000	0.442	0.000	0.360	0.065
	Meaning	0.491	0.000	0.495	0.000	0.469	0.014
	Competence	0.390	0.000	0.383	0.000	0.330	0.093
Out-of-classroom		0.292	0.006	0.283	0.008	0.258	0.194
	Inclusion	0.226	0.017	0.199	0.066	0.325	0.105
	Attitude	0.275	0.003	0.214	0.049	0.328	0.102
	Meaning	0.363	0.000	0.342	0.001	0.387	0.046
	Competence	0.330	0.000	0.316	0.003	0.311	0.121

Relationships with Degree-Level Subsamples

As shown in Table 4-36, and following the trend of all previous correlation analyses, all degree-level subsample *overall classroom* scales correlated more closely with perceived learning (associates n_s=29, r_s=0.506, p=0.005; bachelors n_s=38, r_s=0.596, p=0.000; masters (n_s=46, r_s=0.626, p=0.000) than respective *overall out-of-classroom* scales (associates r_s=0.187, p=0.331; bachelors r_s=0.165, p=0.322; masters (r_s=0.479, p=0.001).

Subscales most significantly correlated with perceived learning were *classroom competence* (r_s =0.444, p=0.015) for the associates subsample and *classroom meaning* for both the bachelors (r_s =0.657, p=0.000) and masters (r_s =0.565, p=0.000) subsamples. Masters was the only subsample with significant subscale correlations within the *out-of-classroom* scale. Therein, the *meaning* subscale demonstrated the most significant correlation (r_s =0.511, p=0.000) with perceived learning.

Within in the associates subsample, all subscale correlations with perceived learning were insignificant with the exception of *classroom inclusion* (r_s=0.386, p=0.039) and *classroom competence* (r_s=0.444, p=0.016). Similarly, within the bachelors subsample, all subscale correlations were insignificant with the exception of two *classroom* subscales: *attitude* (r_s=0.544, p=0.000) and *meaning* (r_s=0.657, p=0.000). Conversely, within the masters subsample, all subscale correlations were significant, with p-values ranging from .000 to .026 (Table 4-36).

Table 4-36 Correlation with Overall Learning - Degree-Level

Scale	Subscale	All (n=113)		Associates (n=29)		Bachelors (n=38)		Masters (n=46)	
		r_s	p	r_s	p	r_s	p	r_s	p
Classroom		0.553	0.007	0.506	0.005	0.596	0.000	0.626	0.000
	Inclusion	0.268	0.004	0.386	0.039	0.220	0.184	0.364	0.015
	Attitude	0.445	0.000	0.287	0.132	0.544	0.000	0.466	0.001
	Meaning	0.491	0.000	0.299	0.130	0.657	0.000	0.565	0.000
	Competence	0.390	0.000	0.444	0.016	0.158	0.343	0.500	0.000
Out-of-classroom		0.292	0.006	0.187	0.331	0.165	0.322	0.479	0.001
	Inclusion	0.226	0.017	0.163	0.408	0.052	0.756	0.374	0.010
	Attitude	0.275	0.003	0.230	0.238	0.252	0.127	0.332	0.026
	Meaning	0.363	0.000	0.358	0.062	0.141	0.400	0.511	0.000
	Competence	0.330	0.000	0.360	0.060	0.191	0.251	0.426	0.004

Analysis of Relationships Summary

Overall sample findings:

- Both overall scales and all subscales evidenced significant positive correlation with learner's perceptions of overall level of current learning (perceived learning)
- The *overall classroom* scale demonstrated considerably stronger correlation with perceived learning than did the *overall out-of-classroom* scale
- Of all subscales, *meaning* demonstrated the strongest correlation within both the *classroom* and *out-of-classroom* scales

Age subsample findings:

- The *overall classroom* scale demonstrated considerably stronger correlation with perceived learning than did the *overall out-of-classroom* scale
- The most significant age 21-30 subscale correlations were *classroom* and *out-of-classroom* competence, and all subscale correlations were significant with the exception of *classroom inclusion*
- The most significant age 31-40 subscale correlations were *classroom attitude* and *out-of-classroom meaning*, and all subscale correlations were significant with the exception of *out-of-classroom inclusion*
- The 41-50 subsample held no significant correlations

98

Gender subsample findings:

- The *overall classroom* scale demonstrated considerably stronger correlation with perceived learning than did the *overall out-of-classroom* scale
- Of all subscales, *meaning* demonstrated the strongest correlation within both the *classroom* and *out-of-classroom* scales
- All male subscale correlations were significantly correlated with perceived learning
- Female subscale correlations were significant with the exception of *classroom inclusion*, and *out-of-classroom inclusion*, *attitude*, and *competence*

Race/ethnicity subsample findings:

- The *overall classroom* scale demonstrated considerably stronger correlation with perceived learning than did the *overall out-of-classroom* scale
- Of all subscales, *meaning* demonstrated the strongest correlation within both the *classroom* and *out-of-classroom* scales
- All predominant subscale correlations were significant with the exception of both *classroom* and *out-of-classroom inclusion*
- All underrepresented subscale correlations were insignificant with the exception of *classroom inclusion* and both *classroom* and *out-of-classroom meaning*

Degree-level subsample findings:

- The *overall classroom* scale demonstrated considerably stronger correlation with perceived learning than did the *overall out-of-classroom* scale
- The most significant associates subscale correlation was *classroom competence*, and all subscale correlations were insignificant with the exception of *classroom inclusion* and *classroom competence*
- The most significant bachelors subscale correlation was *classroom meaning*, and all subscale correlations were insignificant with the exception of *classroom attitude* and *classroom meaning*
- The most significant masters subscale correlations occurred in *classroom* and *out-of-classroom meaning*, and all subscale correlations were significant

Research Question Four – Exploration of Learner Experiences

The final research question sought insight into learner experiences, deemed positively or negatively impacting motivation. The final survey section asked respondents to "share anything further regarding experiences, either in the classroom or in team learning outside of the classroom, you feel would help in understanding what enhances or hinders motivation to learn in your current degree program." Analyzed through qualitative analysis, the process included a sequence of organizing, perusing, classifying, and synthesizing response data. Microsoft Excel™ software was used in organizing and classifying responses. All responses were entered into a spreadsheet and then coded by primary and secondary themes, and observed affect. Forty-eight respondents (35% of sample) offered responses to the survey's concluding statement. Of those, 18 commented specifically on classroom motivation and 34 on team motivation. The result of this analysis is provided in this section, and verbatim responses in Appendix J.

Classroom Motivation

Of those respondents offering comments in regard to motivation in the classroom (18), the topic most observed was instructor characteristics (11). Other topics included course and program characteristics (6) and individual state in relation to participation (2). In regard to instructor characteristics, two primary themes emerged. The first surrounded quality and quantity of instructor interactions with individual learners. Most noted was feedback. Respondents commented specifically on the importance of feedback—both verbally in the classroom and in written assessment remarks. Also noted was accessibility for feedback outside of the classroom. The second theme was instructor ability. Ability was observed in terms of knowledge, classroom engagement, creating positive environment, maintaining high standards, and flexibility.

In regard to course and program characteristics, respondents found quantity and team proportion of work required of their current program to be demotivating. One respondent mentioned that the quantity of work was not consistent across courses—some expecting too much work and others not enough, one mentioned excessive number of team presentations, and one noted the quantity of team work in proportion to individual—and the weight of final grades derived from team work. Also demotivating, one student believed their current program lacked an appropriate level of challenge. Found positively motivating, one respondent noted their current program's curriculum as connecting well with real-life experiences. In regard to

comments regarding personal state, one respondent mentioned being personally demotivated by the current course subject, and one simply saw adult education as a "necessary evil."

Out-of-Classroom Motivation

Of those respondents offering comments in regard to motivation in out-of-classroom team learning (34), the topics most observed were team formulation and characteristics (14). Other topics included motivation as the result of an effective learning team (10), work delegation (2), and suggested team member requirements (1). Other responses (7) stated attitudes toward team learning and motivation outside the scope of this study.

Expressed through either positive or negative experiences, the majority of respondents offered insight into the importance of team characteristics. Team formation was expressed as vital to motivation. Equal team member academic ability, work-quality expectations, and motivation to succeed were noted as necessary for individual motivation to learn within the teams. Respondents also found team members' inter-personal ability important to their motivation and noted inconsideration, non-contribution, and personality incompatibility as negatively effecting motivation to learn.

Many respondents offered insight into motivation as the result of an effective learning team environment. Four respondents commented on enhanced learning through "talking closely" with team members, discussing new ideas, and feeling more involved in learning. Respondents noted feelings of inclusion as positively impacting their motivation: one stated "I feel free to be me," another stated "I feel safe to express myself" and another noted feelings of team loyalty. Two respondents also noted the support role of their teams, identifying encouragement and focus as positive motivating factors. Finally, one respondent described their effective team as "magic."

Less predominant topics regarded work delegation and a suggested admission requirement. Two respondents commented positively on their team learning efficiency. In both instances, respondents reported limited team meeting time and an efficient "divide and conquer" strategy to team deliverables. One respondent suggested writing acumen as a program admissions requirement.

Summary

This chapter reported results of the study. It included a statistical analysis of (a) differences in perceived motivational conditions in both classroom and out-of-classroom environments across demographic categories, and (b) relationships between each learning environment's conditions and perceived overall level of current learning. Further, the study included qualitative analysis of respondent-reported experiences effecting motivation to learn.

Validity of the Motivational Conditions in Learning Instrument™ was established through both content-based and construct-related evidence, whereas reliability was established through Cronbach's alpha analyses. The survey instrument was administered in- person to 137 (91.3%) of 150 adult learners enrolled in randomly selected cohorts, be degree-level and location stratification. Valid response rates were 91.28% for scale analysis and 89.68% for correlation analysis.

Quantitative analysis first identified differences in scale scores across demographic and degree-level categories. The Mann-Whitney U test was used for two-category comparisons, whereas the Kruskal-Wallis test was used for comparisons between greater than two categories. Significant differences occurred in two overall scale analyses. Underrepresented race/ethnicity students (as a combined category), rated overall out-of-classroom conditions significantly higher than predominant race/ethnicity students; and associate-level students rated classroom conditions significantly lower than bachelors and masters-level students.

Significant differences also occurred in subscales. Females rated classroom attitude conditions significantly higher than males; underrepresented race/ethnicity students (as a combined category) rated classroom attitude and competence, as well as out-of-classroom attitude, meaning, and competence significantly higher than predominant race/ethnicity students; associates-level students rated classroom inclusion significantly lower than both bachelors and masters-level students; and both associates and masters-level students rated classroom competence significantly lower than bachelors-level students.

Quantitative analysis also identified correlations between each learning environment's (classroom and out-of-classroom) conditions and perceived level of current learning. The Spearman's rho test was selected for correlation analysis. All scales and subscales evidenced significant positive correlation with learner's perceptions of level of current learning (perceived

learning). The classroom scale demonstrated considerably stronger correlation with perceived learning than did the out-of-classroom scale; and, of all subscales, meaning demonstrated the strongest correlation within both the classroom and out-of-classroom scales.

Correlation analysis also identified correlations by demographic subsample. Subsample findings included: All male subscale correlations were significant, whereas female subscales were not; the 41-50 subsample held no significant correlations; all predominant race/ethnicity subscale correlations were significant with the exception of both classroom and out-of-classroom inclusion, whereas all underrepresented race/ethnicity (combined category) subscale correlations were insignificant with the exception of classroom inclusion and both classroom and out-of-classroom meaning; the most significant associates subscale correlation was classroom competence, whereas the most significant bachelors subscale correlation was classroom meaning and most significant masters subscale correlations were classroom and out-of-classroom meaning.

Qualitative analysis entailed a review of respondent-reported experiences effecting motivation to learn. The analysis process included a sequence of organizing, perusing, classifying, and synthesizing response data. Forty-eight respondents (35% of sample) offered responses to the survey's concluding statement. Of those, 18 commented specifically on classroom motivation and 34 on team motivation. Of those respondents offering comments in regard to motivation in the classroom, the topic most observed was instructor characteristics. Other topics included course and program characteristics and individual state in relation to participation. Of those respondents offering comments in regard to motivation in out-of-classroom team learning, topics most observed were team formulation and characteristics. Other topics included motivation as the result of an effective learning team work delegation.

These results are further examined in Chapter Five with recommendations for application and additional research potentially contributing to greater understanding and enhanced motivation to learn for diverse adult learners.

CHAPTER 5 - Conclusions and Recommendations

Introduction

This chapter summarizes the study design and then discusses resultant findings as they relate specifically to the research questions and, more broadly, to adult and higher learning. Then documented are conclusions, implications, and recommendations for the improvement of practice. Finally, recommendations for further research are provided.

Summary of the Study

Through the creation of the *Motivational Conditions in Learning Instrument*[©] (MCLI[©]), this study measured and benchmarked current levels of conditions eliciting intrinsic motivation to learn in both classroom and out-of-classroom learning environments. Scores from two overall scales (classroom and out-of-classroom) and inherent subscales (inclusion, attitude, meaning, and competence) were quantitatively analyzed for differences across age, gender, race, and degree-level categories. Quantitative analysis also examined which scale and subscales most closely correlated with perceived learning, for the overall sample as well as age, gender, race, and degree-level subsamples. Finally, qualitative analysis entailed a review of respondent-reported experiences impacting motivation to learn.

The study was conducted at five satellite campuses of one Midwestern university. Three campuses are located in one metropolitan area and the others in two different urban areas. The University is accredited by the North Central Association of Colleges and Universities and significantly experienced in offering cohort-based accelerated degree programs. Surveys were administered in-person to 137 (one survey omitted) adult learners during the months of April and May, 2012. Each study participant was enrolled in one of 13 randomly selected cohorts, stratified by campus location and program degree-level.

The study acquired attitudinal data to help answer the following research questions:

1. Does current level of learner-perceived motivational conditions in classroom environments differ across demographic categories?
2. Does current level of learner-perceived motivational conditions in out-of-classroom team learning environments differ across demographic categories?

3. Does level of classroom or out-of-classroom team learning conditions better correlate with learner-perceived overall level of current learning?

4. What experiences do learners recall as positively or negatively impacting motivation to learn in either classroom or out-of-classroom team learning experiences?

Discussion of Findings

Statistical analysis demonstrated that the *Motivational Conditions in Learning Instrument*[©] (MCLI[©]) was valid, reliable, and effective in measuring learner-perceived levels of motivational conditions experienced in both classroom and out-of-classroom environments; identifying differences in those measures across demographic categories, and in identifying correlations between each of those measures and learner-perceived levels of current learning.

Research Question One - Classroom

Descriptive statistics facilitated measurement and benchmarking of learner-perceived motivational conditions in *classroom* environments, and non-parametric inferential statistics provided an understanding of differences in perceived conditions across demographic categories. The *overall classroom* motivation benchmark was 93.97 (SEM=0.850, 81.71% of total score possible), with one significant difference identified. Associates-level students ($\bar{x}$ =89.60, SEM=1.502), overall, rated conditions significantly lower than bachelors ($\bar{x}$ =96.30, SEM=1.405) and masters ($\bar{x}$ =95.32, SEM=1.362) students. To better understand which motivational conditions were perceived differently, subscales (inclusion, meaning, attitude, and inclusion) were separately analyzed for differences across demographic categories.

Attitude Condition

The *classroom attitude* condition benchmark was 19.54 (SEM=0.210, 78.16% of total subscale score possible.) Females ($\bar{x}$ =19.99, SEM=0.270) and underrepresented students ($\bar{x}$ =20.40, SEM=.387) rated classroom attitude significantly higher than males ($\bar{x}$ =19.05, SEM=0.316) and predominant students ($\bar{x}$ =19.24, SEM=0.243), respectively. According to Wlodkowski (2003b, p.43), the attitude condition entails developing favorable dispositions toward the learning experience and the effort required therein. Key to this condition is learners' perception of relevance. Learning is relevant when it reflects learners' personal, communal and

cultural meanings in a manner demonstrating a respectful awareness of his or her perspective. When relevance and volition are both present, most adults are initially motivated to learn (Wlodkowski, 2008).

In consideration of why females and underrepresented students rated *classroom attitude* higher than males, presumably White males, three questions emerged. First, was the course content less relevant to White males? Second, also related to relevancy, did the classrooms' cohort-based structure better reflect the communal and cultural perspectives of females and underrepresented students? Third, did the females and underrepresented learners in the study have a greater level of volition—desire—to learn?

Given the study methodology, content relevancy is not a viable explanation. Within the random selection of 13 cohorts, a variety of business and conflict management courses were represented. With the assumption that students were enrolled in programs believed personally relevant, it is highly unlikely that White males collectively found their respective course content less relevant than females and underrepresented students.

The second question seems a more likely explanation. All participants were enrolled in cohort-based programs. Further, within each cohort, learning team sub-groups worked together in the classroom delivering learning team presentations, report-outs, and peer-teaching activities. Many learning and development models recognize a general difference in male and female perspectives. Jordan (1997, p.21) acknowledges the difference between a "separate, autonomous, objective male self and a relational, connected, and empathic female self. Gilligan (1982) asserts that the centrality of connection in women's sense of self is at the core of women's development. And, the Stone Center relational model suggests that women's sense of self is "continuously formed in connection to others and is inextricably tied to relational movement" (Jordan, 1997, p.15). The importance of connectedness and relationships is also acknowledged in race/ethnicity learning and development literature. Alfred (2000) acknowledges learning in groups as a hallmark of the Africentric epistemological framework, and Hecht, Andersen, & Ribeau (as cited in Wlodkowski, 2008) state that Mexican Americans tend to place more emphasis on group and relational solidarity.

The third question also seems a reasonable assertion although less grounded in literature. Did the females and underrepresented learners in the study have a greater level of volition— desire—to learn? Students in the study were generally working adults engaged in degree

programs benefiting their work worlds. Additionally, many of the students received employer tuition reimbursement when course grades met employer expectations. Given the employer incentive, it seems reasonable to assert that these students, including White men, felt a certain level of volition to perform well in their course work. However, it is conceivable that female and underrepresented students felt more volition, or urgency, in their learning. In light of well-documented inequitable pay of women and minorities in the workforce (Gray, 2011; Alkadry & Tower, 2006; Unequal Pay, 2012) it is possible that pressure to perform was felt more intently by women and underrepresented students. Additionally, a greater sense of urgency may have been manifested in the female students' volition to learn as they endured pressures of work, study, and primary care-giver responsibilities. Kramarae (2001) stresses that women face significant barriers to their educational efforts as they balance work, community, and family responsibilities while also facing greater financial burdens than men.

Inclusion Condition

The *classroom inclusion* benchmark was 32.54 (SEM=0.308, 81.63% of total subscale score possible). Associates students ($\bar{x}$ =30.65, SEM=0.595) rated classroom inclusion significantly lower than bachelors ($\bar{x}$ =33.15, SEM=0.469) and masters ($\bar{x}$ =33.83, SEM=0.445) students. The inclusion condition speaks to equitable opportunity to learn (Ginsberg & Wlodkowski, 2009). Learning begins with developing relationships that demonstrate respect for the inclusion of different cultures and in creating a learning environment that all students can accept (Davis, 1992; Wlodkowski, 2008). Respect and connectedness are the two primary dimensions inherent in the condition. When learners feel respected, they find it easy to be themselves, are comfortable speaking what is on their minds and expressing opposing views, and can value other learners' perspectives. When learners feel connected, they have a sense of trust and care between themselves, other learners, and the instructor; and can help create a good learning environment (Wlodkowski, 2008).

The most intuitive explanation of associates students' lower inclusion rating is that better diversity representation provided a more accurate indicator of the condition while ratings of less diverse bachelors and masters subsamples obscured the opinions of underrepresented students. The associates subsample was comprised of 38% underrepresented students, compared to only 20% and 22% of the bachelors and masters subsamples, respectively.

Additional explanations were explored through consideration of cohort-based learning experience and personal development. Many of the students in the bachelors and masters courses had prior cohort-based learning experiences whereas most of the associates students were involved in their first higher learning and/or cohort-based learning experience. It is reasonable to assert that students choosing to continue with cohort-based learning for their bachelors and masters degree programs had developed, at least, some behavioral norms for respectfully speaking their opinions and expressing their view while allowing others to do the same. At best, these students may have experienced, or be in the throes of, transformational learning characterized by awareness of presuppositions; positive relationships demonstrating shared commitment, mutual respect, and appreciation of individual differences and strengths; and critical reflection of personal beliefs (Imel, 2002; Lawrence, 1997). It is also reasonable to assert that the associates students, mostly without higher and cohort-based learning experience, were only beginning the process of identifying and reflecting upon presuppositions and developing relationships offering the support and challenge required of growth.

Meaning Condition

The *classroom meaning* benchmark was 26.30 (SEM=0.282, 75.14% of total subscale score possible). Students aged 26-30 years ($\bar{x}$ =11.94, SEM=0.301) rated classroom meaning lowest among all age groups and significantly lower than students aged 21-25 ($\bar{x}$ =12.67, SEM=0.454) and 36-40 years ($\bar{x}$ =12.47, SEM=0.345). The meaning condition exists when surface knowledge is utilized as foundation for increasingly complex concepts potentially generating deeper meaning. Wlodkowski (2003b) explains that learners create meaning as they engage in challenging learning activities: Learners first pay attention to something when its variation, novelty, or relevance has emotional weight or meaning and then engage in learning as attention persists, interest is evoked, and cognitive effort is exerted. In this view, intrinsic motivation is elicited through personal relevance and emotional response (Ginsberg & Wlodkowski, 2009) and can provoke passionate feelings and generate a strong sense of purpose (Csikszentmihalyi, 1997).

At first brush, this finding was puzzling. The age category (26-30) perceiving the meaning condition less significantly did so in relation to both a younger (21-25) and older (36-40) group. An intuitive question, then, was "why would this group, based on age, perceive less personal relevance and emotional response to their learning?" A consideration of cognitive

development was first considered. Levinson and Levinson (1996) suggest development occurs through an evolving sequence of stable and transitional periods correlating with chronological age and life structure (marriage, family, occupation, religion). It is this researcher's opinion that the life structures of the 26-30 aged participants generally were not much different than those of the 21-25 aged participants.

A more likely explanation for differences in relevance and emotional response seems to be degree-level. Formed from teaching experience at the University, it is the researcher's opinion that masters students may have been less emotionally involved in their learning. Much of the masters-level curriculum reiterates bachelors-level concepts, with an added focus of demonstrating higher level application. In this vein, it is reasonable to consider that masters students were not experiencing the same level of emotion as were students exploring new knowledge and concepts. Additionally, although reasonable to assume learning remained relevant, these students may have perceived their course work as mastered, or nearly so. With this thought in mind, a return to the data identified that 42% of the 26-30 category students were enrolled in masters programs. Conversely, 21% of the 21-25 aged and 36% of the 36-40 aged students were enrolled in masters programs.

Competence Condition

The *classroom competence* benchmark was 12.37 (SEM=0.143, 82.47% of total subscale score possible). Underrepresented students ($\bar{x}$ =13.03, SEM=0.251) rated classroom competence significantly higher than predominant students ($\bar{x}$ =12.14, SEM=0.167). Additionally, bachelors students ($\bar{x}$ =12.39, SEM=0.263) rated classroom competence significantly higher than both associates ($\bar{x}$ =11.26, SEM=0.454) and masters students ($\bar{x}$ =11.71, SEM=.332). The competence condition results from providing a measure of proficiency and progress (Ginsberg & Wlodkowski, 2009). Humans desire to be effective in authentic and valuable ways (Csikszentmihalyi, 1997; Ginsberg & Wlodkowski, 2009; Pink, 2009; Plaut & Markus, 2005), and motivation is evoked when there is a desire to be effective at what one values (Ginsberg & Wlodkowski, 2009). Strong evidence supports assessment as the activity most validating learner competence (Elliott & Dweck, 2005; Hattie & Timperley, 2007). Assessment is authentic when it is aligned with learner's life circumstances, frames of reference, and values; and it is effective

when it provides the learner an awareness of his or her level of proficiency or accomplishment (Wlodkowski, 2008).

To explore why underrepresented and bachelors students, specifically, rated the competence condition higher than other students, a review of the applicable scale statements were examined. The first two statements addressed student perception of instructor feedback in regard to a) effectiveness in helping students improve in individually important ways and b) students' receptiveness. Given the random selection process and resultant representation of 13 different instructors, it is unreasonable to consider that, underrepresented and bachelors-level participants received more effective instructor feedback. Similarly, the researcher does not believe perceived differences in this condition can be explained by categorical receptiveness to feedback.

The final scale statement for review was "activities will benefit students' work, or future work, outside of school." Based solely on supposition, perhaps the underrepresented students felt more strongly about the impact their endeavors would have on their work worlds. Similar to the earlier mention of volition and urgency, perhaps underrepresented students had greater expectations for learning outcomes in relation to jobs and quality of life. In regard to bachelors students, and again solely from supposition, perhaps the bachelors students were at a peak in recognizing the link between their course work and work outside of school, whereas associates students take a greater number of foundational course that may seem less directly linked to their current daily work tasks. On the other end of the spectrum, and as previously considered in the meaning condition discussion, perhaps the masters students didn't perceive curriculum as having the same level of benefit to their work or felt less enthused by the lack of new knowledge and ideas.

Research Question Two – Out-of-Classroom

Descriptive statistics facilitated measurement and benchmarking of learner-perceived motivational conditions in *out-of-classroom* team learning environments, and non-parametric inferential statistics provided an understanding of differences in perceived conditions between demographic categories. The *overall out-of-classroom* motivation benchmark was 91.38 (SEM=1.162, 79.46% of total score possible). A significant difference was found within the race/ethnicity category. Underrepresented students ($\bar{x}$ =95.97, SEM=1.658), rated *out-of-*

110

classroom conditions significantly higher than predominant students ($\bar{x}$ =89.78, SEM=1.426). Furthermore, when analyzing each condition subscale, the only identified differences occurred in underrepresented students rating the condition higher than predominant students. Following is documentation of each subscale score followed by a consideration of why underrepresented students rated *out-of-classroom attitude, meaning, and competence* significantly higher than predominant students.

- The *out-of-classroom attitude* benchmark was 19.54 (SEM=0.276, 78.16% of total subscale score possible), and underrepresented students ($\bar{x}$ =20.53, SEM=0.472) rated the condition significantly higher than predominant students ($\bar{x}$ =19.21, SEM=0.328).

- The out-of-classroom meaning benchmark was 26.61 (SEM=0.360, 76.03% of total subscale score possible), and underrepresented students ($\bar{x}$ =28.26, SEM=0.444) rated the condition significantly higher than predominant students ($\bar{x}$ =26.03, SEM=0.447).

- The out-of-classroom competence condition benchmark was 11.81 (SEM=.203, 78.73% of total subscale score possible), and underrepresented students ($\bar{x}$ =12.79, SEM=0.340) rated the condition significantly higher than predominant category students ($\bar{x}$ =11.48, SEM=0.238).

- In only one category, inclusion, there were no significant differences in ratings across demographic and degree-level categories. The out-of-classroom inclusion benchmark was 33.67 (SEM=0.427, 84.18% of total subscale score possible).

The question resulting from this scale's findings was quite clear. "Why, in three of four condition subscales, did a difference occur in the race/ethnicity category?" More generally, "why were underrepresented students more intrinsically motivated to learn from their respective team learning environments than predominant students?" Two general explanations were most evident. First, team value was perceived differently across cultures and, second, team constitutions of underrepresented students created a more beneficial experience. It is reasonable to consider that the importance of connectedness and relationships is manifested in student perceptions of team interactions. As stated in the previous section, group learning is prevalent in both African American (Alfred, 2000) and Mexican American cultures (Wlodkowski, 2008)—the two race/ethnicities most represented in the underrepresented subsample. The second

111

explanation, team constitution, requires further study as this research did not document team constitution or dynamics.

Research Question Three – Condition Correlation with Current Learning

Non-parametric inferential statistics were employed to determine which overall scale, classroom or out-of-classroom, more closely correlated with learner-perceived level of learning. Although both scales evidenced significantly positive correlation with perceived learning, *overall classroom* (r_s=.553, p=0.000) better correlated with perceived learning than did *overall out-of-classroom* team learning conditions (r_s=.292, p=0.002). Each subscale (inclusion, attitude, meaning, and competence), within both scales (classroom and out-of-classroom) also evidenced significant positive correlation with perceived learning. Of all subscales, *meaning* demonstrated the strongest correlation in both the classroom (r_s=.491, p=0.000) and out-of-classroom (r_s=.363, p=0.000) scales. It can then be suggested that the meaning condition has the most impact on learning, as perceived by learners.

As stated previously, the meaning condition exists when surface knowledge is utilized as foundation for increasingly complex concepts potentially generating deeper meaning. Learners create meaning as they engage in challenging learning activities: Learners first pay attention to something when its variation, novelty, or relevance has emotional weight or meaning and then engage in learning as attention persists, interest is evoked, and cognitive effort is exerted (Wlodkowski, 2003b). In this view, intrinsic motivation is elicited through personal relevance and emotional response (Ginsberg & Wlodkowski, 2009).

The importance of meaning also aligns with the meaning making adult learning assumption proposed by Knowles (1968). "The resource of highest value in adult education is the learner's experience" (Lindeman, 1961). Furthermore, meaning making from experience is foundational to adult development. According to Mezirow (1978, 1981, 2000), becoming aware of one's experiences and the tendency to relive those experiences is fundamental to adult development and is learning "most uniquely adult" (1989, p. 100). Kegan (1994) explains adult meaning making through a five-order model of consciousness wherein adults develop and increasing ability to organize meaning as they become more aware—conscious—of how they organize their thinking, feeling, and social relating. Further, Kegan (1994) explains that adults become self-authoring as they become the writer of their own reality.

Correlations were also examined by demographic subsamples. Mirroring the overall sample results, both gender (male and female) and race/ethnicity (predominant, underrepresented) subsamples, as well as bachelors and masters subsamples, were positively correlated with perceived learning; the *overall classroom* scale was more strongly correlated than was the *overall out-of-classroom* scale; and the *meaning* condition was most strongly correlated with perceived learning.

For the youngest (21-30) and associates students, the competence condition was most correlated with perceived level of current learning. This finding suggests that, for this age group and degree-level, competence had a more significant impact on perceived learning. As a brief reiteration, the competence condition results from providing a measure of proficiency level and learning progress (Ginsberg & Wlodkowski, 2009). Conversely, for the eldest students, none of the classroom or out-of-classroom conditions significantly correlated with learner-perceived learning. This finding suggests that none of the conditions significantly impacted this age groups' perception of learning. Further, this finding supports the notion that adult learners can develop into more autonomous learners wherein self-identity and knowledge are more self, than socially, constructed (Candy, 1991; Tennant & Pogson, 1995). This study examined motivation conditions in social settings. It is reasonable to consider that the social aspect of learning is less relevant as learners advance in age, perspective transformation (Mezirow, 1978, 1981, 2000) or conscientiousness (Kegan, 1994).

Research Question Four – Exploration of Learner Experiences

The instrument's concluding open-ended item facilitated the documentation of learner experiences positively or negatively impacting motivation to learn in either classroom or out-of-classroom learning environments. It is important to note that self-selection bias may be present in these responses. Not all respondents offered comments and those who did may be among those with the strongest positive or negative perceptions and may not well represent the perceptions of the study population (Dillman, 2000).

Of those respondents offering comments in regard to motivation in the classroom, the topic most observed was instructor characteristics. Therein, two primary themes emerged. The first surrounded quality and quantity of instructor interactions with individual learners. Most noted was feedback. Respondents commented specifically on the importance of feedback—both

113

verbally in the classroom and in written assessment remarks. The second theme was instructor ability. Ability was observed in terms of knowledge, classroom engagement, creating positive environment, maintaining high standards, and flexibility.

Similar to findings by Donaldson (2001) and Scott (2003), students identified instructor attributes as fundamental to their assessment of the accelerated learning classroom. Insights from this study identified the following instructor abilities as important to motivation to learn in the classroom:

- Quality and quantity of feedback

- Sufficient knowledge

- Generating student engagement

- Creating a positive environment

- Maintaining high standards

- Flexibility in curriculum and delivery

Course and program characteristics were also noted in classroom experiences. Some respondents found quantity and team proportion of work required of their current program to be demotivating. One respondent mentioned that quantity of work was not consistent across courses—some expecting too much work and others not enough, one mentioned excessive number of team presentations, and one noted the quantity of team work in proportion to individual—and the weight of final grades derived from team work. Also demotivating, one learner believed their current program lacked an appropriate level of challenge. Found positively motivating, one respondent noted their current program's curriculum as connecting well with real-life experiences

Student insights on motivation to learn in out-of-classroom team learning environments were mostly identified as either "magic" or tragic in their impact on motivation to learn. These insights evidenced the importance of group culture, not only to the individual student, but also to the educational environment of the team (McCarthy, Trengy, & Weiner, 2005). As documented in previous literature, relationships are noted as especially or most important in cohort-based

learning (Brooks, 1998; Kaworm, 2003b, Imel, 2002; Lawrence, 1997; McCarthy, Trenga, & Weiner, 2005; Saltiel &Russo, 2001).

Of those students describing their out-of-classroom team learning as positively impacting motivation to learn, commitment (Saltier and Russo, 2001) and feelings of support (Kasworm, 2003b; Norris & Barnett, 1994) were specifically mentioned as beneficial. Fundamental to theories of transformational learning, when positive relationships develop within groups, learners report feeling safe to express thoughts and feelings (Drago-Severson, Helsing, Kegan, Popp, Broderick, & Portnow, 2001; Imel, 2002; Lawrence, 1997; Norris & Barnett, 1994). And, this safe place provides a space for critical reflection ultimately providing "fertile ground for the cultivation of personal values" (Basom, Yerkes, Norris & Barnett, 1995, p.17). Three students used terminology evidencing relationships that contribute to transformational learning:

1. "Teams and small groups provide an environment that's 'safe' to express differing opinions or question the understanding of particular subject matter, much different than an employment environment."

2. "I love my learning team and the concept at [University]. It has allowed me to flourish in college unlike at traditional settings [that] didn't allow me to be me."

3. "Learning in a team environment helps solicit new ideas and discussion."

Of those students describing their out-of-classroom team learning as negatively impacting motivation to learn, most responses commented on team formation. Equal academic ability, goal-orientation, and interpersonal skill were identified by learners as crucial to successful team learning. When unequal abilities and orientations were noted, students also noted demotivation and described environments converse to those described by learners reporting positive team learning. As evidence:

1. "Learning teams kill motivation for good students. Bad students float through on coattails."

2. "I feel as though the group setting hinders my individual learning. I end up spending a majority of my time completing a large portion of the group work in every class. This takes away from my focus on individual work."

3. "My experience has been terrible in regards to teams. Students not participating in group, turning work in late, and bad attitudes make my group barely functional."

4. "The team learning environment only works if all members are equally motivated and willing to work toward the team goal."

Conclusions

Education is essential for all. Commitment to equal opportunity and social mobility is among the major philosophies profoundly influencing the character of United States education. As colleges and universities enroll increasingly diverse student populations, with differing perceptions and ways of making meaning, educators and co-facilitating learners must be increasingly intentional about practices enhancing motivation to learn for all learners.

Learning is inseparable from motivation, always cultural and impeded when learners feel excluded or marginalized in a learning environment. Founded upon well-researched ideas and findings, and considerably supported by neuroscientific principles and research, Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching* identifies the interrelated and reciprocal conditions of inclusion, attitude, meaning, and competence as eliciting intrinsic motivation to learn for all learners. Ideally, these conditions should be sufficiently present in all learning environments and there should be no significant differences in learner-perceived levels of conditions, across any given demographic segment.

The *Motivational Conditions in Learning Instrument*[©] (MCLI[©]) is valid, reliable, and effective in measuring learner-perceived levels of motivational conditions experienced in both classroom and out-of-classroom environments and in identifying correlations between each of those measures and learner-perceived level of current learning.

Following are conclusions most aligned with areas of study within adult learning and development literature and potentially adding insight into, confirmation of, or alternative consideration of current ideology. The conclusions are preliminary and expected to be confirmed or revised as additional data are acquired from further use of the MCLI[©].

Motivation to Learn in the Classroom

The classroom environment impacts perceived learning more so than out-of-classroom team learning. Of all motivation conditions, and with one exception, the meaning condition has the most impact on perceived learning. The exception is found with the youngest and lowest degree-level students. For these groups, the competence condition has the most impact on

116

perceived learning. The cohort-based classroom may elicit more intrinsic motivation for female and some race/ethnicity students, for whom relationships and connectedness are generally more foundational to learning. Lastly, the impact of instructor characteristics in successful accelerated classrooms is supported with abilities in background knowledge, classroom engagement, assessment and feedback noted as most beneficial.

Motivation to Learn in Out-of-Classroom Team Learning

Out-of-classroom team learning environments impact perceived learning, although less so than classroom environments. Akin to classroom learning, the meaning condition has the most impact on perceived learning with one exception found for the youngest and lowest degree-level students. For these groups, the competence condition has the most impact on perceived learning. Out-of-classroom team learning conditions are rated higher by underrepresented students (primarily African and Mexican Americans in this study) and may demonstrate the importance of connectedness and relationships in learning for these students. The most motivating teams are characterized by feelings of commitment and support while the least motivating teams are described as those wherein team members have unequal expectations, goals and/or interpersonal and academic abilities.

Age and Motivation to Learn

For the eldest students, none of the classroom or out-of-classroom conditions significantly correlated with perceived learning thus indicating no significant impact on this groups' perceived learning. This finding supports the notion that adults generally develop into more autonomous learners whereby knowing is more self, and less socially, constructed.

Benchmarks

The following scores are preliminary benchmarks serving as a comparison for future users of the MCLI.

- The *classroom inclusion* condition received a rating of 81.63%, a "B" in academic grading terms.
- The *classroom attitude* condition received a rating of 78.16%, a "C" in academic grading terms.

- The *classroom meaning* condition received a rating of 75.14%, a "C" in academic grading terms.

- The *classroom competence* condition received a rating of 82.47%, a "B" in academic grading terms.

- The *out-of-classroom inclusion* condition received a rating of 84.18%, a "B" in academic grading terms.

- The *out-of-classroom attitude* condition received a rating of 78.16%, a "C" in academic grading terms.

- The *out-of-classroom meaning* condition received a rating of 76.03%, a "C" in academic grading terms.

- The *out-of-classroom competence* condition received a rating of 78.83%, a "C" in academic grading terms.

Implications

The MCLI© is a valid and reliable instrument facilitating a quantitative measurement of conditions eliciting intrinsic motivation to learn in both classroom and out-of-classroom team learning environments. Measuring, benchmarking, and identifying differences across demographic categories facilitates understanding and reporting of conditions, as well as evaluating and evidencing improvements over time. The ability to quantitatively demonstrate improvements in equitable learning conditions is a significant benefit to institutions focused on diversity within North Central Association of Colleges and Schools' American Quality Improvement Program (AQIP), Continuous Quality Improvement (CQI) methodologies, or within strategic enrollment management objectives.

Further, the MCLI© is aligned with Wlodkowski and Ginsberg's *Motivational Framework for Culturally Responsive Teaching*. Because of this alignment, educators and co-facilitating students have access to relevant and immediately applicable strategies for enhancing adult motivation to learn through any condition (inclusion, attitude, meaning, and/or competence) assessed as benefiting from improvement. In *Enhancing Adult Motivation to Learn* (2008), Wlodkowski offers realistic teaching methods and deliberate actions that enhance motivation to learn for all learners.

The following implications are based upon preliminary conclusions expected to be confirmed or revised as additional data are acquired from further use of the MCLI$^©$.

Motivation to Learn in the Classroom

The classroom provides fertile ground for enhancing motivation to learn for diverse learners. Creating classroom environments with conditions of inclusion, attitude, meaning and competence not only enhances motivation to learn in the classroom but also provides the opportunity to develop students as learning co-facilitators.

The youngest of adult learners and those in their first higher education experience have a greater need to understand how effectively they are learning and how their learning has authentic value to their lives and communities. For these learners, special attention should be placed on the competence condition. For the older and more academically experienced students, the meaning condition has the most impact on perceived learning. These students require consistently challenging and engaging classroom experiences that promote the integration of individual perspectives and values.

The cohort-based classroom may elicit more intrinsic motivation for female and some race/ethnicity students, for whom relationships and connectedness are generally more foundational to learning. Although this is a strength of cohort-based learning, adult educators must be cognizant that some students find meaning in more individual and autonomous efforts. These students must be equally provided an environment promoting motivation to learn.

Finally, quality instructors remain paramount to creating environments that enhance motivation to learn in cohort-based programs. In addition to proficient and experiential knowledge in their discipline, instructors capable of creating environment that enhance motivation to learn must be skilled in classroom engagement and providing meaningful assessment and feedback.

Motivation to Learn in Out-of-Classroom Team Learning

Out-of-classroom team learning environments significantly impact perceived learning, and may be even more important for students who are culturally attuned to connectedness and relationships in learning. In effect, students involved in out-of-classroom team learning are co-facilitators of learning. They are responsible for contributing to the learning of their team mates

119

and can have a significantly positive impact on learning when committed to, and skilled in, creating environments that enhance motivation to learn for themselves and their teammates.

Similar to classroom learning, the youngest and least academically experienced students specifically need to understand how effectively they are learning in their teams and how that learning has authentic value to their lives and communities. To contribute to this understanding in team learning, students need to be given direction on how to identify and promote recognition of learning through meaningful feedback. Also similar to classroom learning, the more academically experienced students need challenging and engaging learning experiences that promote the integration of individual perspectives and values. To contribute to this condition in team learning, students need instruction on how to create challenge and engagement within their team learning and how to integrate individual perspective and values in their team endeavors. Furthermore, and encompassing all team interactions, students need to understand the importance of their commitment to the team and responsibility of creating a supportive environment that equitably cultivates motivation to learn for all team members.

Within the comments provided by students, team composition was passionately identified as vital to motivation to learn. It is understood that a component of team learning is learning to be an effective team without prior consideration of individual characteristics, goals or abilities. However, given the significance of team dynamics on motivation to learn, it is reasonable to consider how educators can do more to assist learners in selecting team mates, in becoming learning co-facilitators, and in developing high-learning teams.

Age and Motivation to Learn

For the eldest students, none of the classroom or out-of-classroom conditions significantly impacted perceived learning. That is not to say that the motivational conditions have no importance to this age group. Certainly, the attributes found in motivating environments garner an engaged learning experience for all age groups. Although connectedness and competence endearing attributes may carry less weight for the eldest students, it is only reasonable to assert that these students, too, are more engaged in learning when they feel respected, believe their current learning is personally relevant, are appropriately challenged, and are provided the opportunity to interject their perspectives and values in learning activities.

120

The presence of these eldest of students stands to benefit all students. Not only do these students bring a wealth of experience to their classrooms and learning teams, they potentially provide a model of self-directedness and autonomy in exploring new knowledge and ways of making meaning; and of self-authorship—not only being written on by a culture, but becoming the writer of one's own reality.

Benchmarks

The benchmarks provide a measure by which this study's University and future users of the MCLI$^©$ can gauge their current learning environments, identify areas for improvement, and document progress in efforts to provide equitable learning environments for all students. Because the MCLI$^©$ is comprised of two separate scales, individually evidenced as valid and reliable, institutions without cohort-based learning can also benefit from the instrument when revised to exclude the out-of-classroom scale.

Recommendations for the Improvement of Practice

In efforts to continually improve the state of equitable learning conditions, institutions of higher learning can implement systematic use of the MCLI$^©$ to report current conditions, identify areas of improvement, direct professional development of instructors and staff, and, ideally, demonstrate improvements in measures over time. As exemplified in the "Benchmarks" section herein, institutions have a rich resource of suggested strategies for improving inclusion, attitude, meaning, and competence conditions.

The following recommendations are based upon preliminary conclusions expected to be confirmed or revised as additional data are acquired from further use of the MCLI$^©$.

Motivation to Learn in the Classroom

1. Continued professional development for educators is essential for realizing institution-wide understanding of the importance of enhancing motivation to learn and for developing superior skills in creating classrooms that best provide environments of attitude, inclusion, meaning, and competence. Educators should be proficient in their understanding of Wlodkowsk and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching*. Further, educators can use the MCLI$^©$ as an instrument for measuring conditions and as a practical

tool for identifying areas for enhancement through suggested strategies (exemplified in the following "Benchmarks" section).

2. In addition to overall professional development efforts mentioned in item one above, focused effort should be placed on building:

   a. the *competence* and *inclusion* conditions for the associates and youngest adult students. These students have a greater need to understand how effectively they are learning and how their learning has authentic value to their lives and communities. Instructors must help connect curriculum to student's lives and model how students can themselves identify these connections. Additionally, these students have less experience in co-creating inclusive environments. They should receive focused direction through orientation events, classroom activities, and student support interactions.

   b. the *meaning* conditions for the more experienced students. The meaning condition has the most impact on perceived learning. Students require consistently challenging and engaging classroom experiences that promote the integration of individual perspectives and values.

Motivation to Learn in Out-of-Classroom Team Learning

1. When team learning is a significant program element, students must be better informed of, and skilled in, their role as learning co-facilitators. Within orientation programs, students should receive considerable direction on their learning co-facilitation role and the importance of that role in assuring equitable learning for themselves and their team mates. As exemplified in the following "Benchmarks" section, classroom strategies can be adapted for use in out-of-classroom learning. Building co-facilitation skills should begin in orientation exercises and continue throughout each course. Modeling, reinforcing, and acknowledging best practices should be present in every classroom and support services experience.

2. Similar to classroom learning, the youngest and least academically experienced students specifically need to understand how effectively they are learning in their

teams and how that learning has authentic value to their lives and communities. To contribute to this understanding in team learning, students need to be given direction on how to identify and promote recognition of learning through meaningful feedback.

3. Also similar to classroom learning, the more academically experienced students need challenging and engaging learning experiences that promote the integration of individual perspectives and values. To contribute to this condition in team learning, students need instruction on how to create challenge and engagement within their team learning and how to integrate individual perspective and values in their team endeavors.

4. Given the significance of team dynamics on motivation to learn, Educators must do more to assist learners in selecting team mates, in becoming learning co-facilitators, and in developing high-learning teams. In addition to recommendation previously made herein, orientation programs must include instruction on team dynamics and the importance of discussing individual expectations of team characteristics, goals, and academic performance.

Benchmarks

As identified by the benchmarks, following are recommendations for improvement specific to the University in this study. These recommendations also serve as an example of how other users of the MCLI$^©$ can benefit from measuring their learning environments, identifying areas of improvement, and building strategies for enhancing motivation to learn for all learners. Each recommendation can be implemented through a combination of policy and procedure, curriculum development, student orientations and instructor development as appropriate to the University. All suggested strategies are among those provided in *Enhancing Motivation to Learn* (Wlodkowski, 2008) and *Diversity and Motivation: Culturally Responsive Teaching in College* (Ginsberg & Wlodkowski, 2009).

1. The *classroom inclusion* condition received a rating of 81.63%, a "B" in academic grading terms. The University can improve this condition through efforts to enhance learners' perceptions of respect and connection to one another. These efforts can be implemented through a combination of the following strategies:

a. explicitly introduce norms and participation guidelines

b. clearly identify learning objectives and instructional goals

c. concretely indicate cooperative intentions to aid learning

d. emphasize the human purpose of what is being learned its relationship to learners' personal lives and situations

e. assess learners' current expectations, needs, goals, and previous experience as it relates to a given course

f. provide ample opportunity for multidimensional sharing

g. acknowledge different ways of knowing, different languages, and different levels of knowledge or skill among learners

2. The *classroom attitude* condition received a rating of 78.16%, a "C" in academic grading terms. The University should take steps to create more favorable dispositions toward learning through personal relevance and volition. Efforts can be implement through a combination of the following strategies:

a. concretely indicate cooperative intentions to aid learning

b. provide rationale for all mandatory assignments

c. acknowledge different ways of knowing, different languages, and different levels of knowledge or skill among learners

d. minimize any negative conditions that surround the subject

e. use assisted learning to scaffold complex learning

f. promote learner's personal control of learning

g. use relevant models to demonstrate expected learning

h. establish challenging yet attainable learning goals

3. The *classroom meaning* condition received a rating of 75.14%, a "C" in academic grading terms. The University should implement practices that better provide appropriate challenge, engaging learning, and opportunities for learners to interject individual perspectives and values in their learning activities. Implementation can occur through a combination of the following strategies:

a. provide frequent response opportunities to all learners on an equitable basis

b. help learners realize their accountability for what they are learning

c.   provide variety in personal presentation style, modes of instruction, and learning materials

d.   use critical questions to stimulate engaging and challenging reflection and discussion

e.   use concept maps to develop and link interesting ideas and information

f.   use humor appropriately, liberally, and frequently

g.   selectively use examples, analogies, metaphors and stories

h.   use relevant problems, research, and inquiry to facilitate learning

4. The *classroom competence* condition received a rating of 82.47%, a "B" in academic grading terms. The University can improve this condition through efforts to enhance learners' understanding how effectively they are learning and how that learning benefits their lives and communities, with a specific focus on associates-level classrooms These efforts can be implemented through a combination of the following strategies:

a.   provide effective feedback

b.   avoid cultural bias and promote equity in assessment procedures

c.   provide opportunity for demonstration of learning in ways that reflect strengths and multiple sources of knowing

d.   pay special attention to the creation of equitable, valid, and sufficiently clear rubrics

e.   provide sufficient opportunity to construct relevant insights and connections

The following recommendations are suggested for out-of-classroom team learning. Each recommendation can be initiated through student orientation curriculum and classroom activities emphasizing and modeling the student's role as learning co-facilitator. All suggested strategies are adaptations from those provided in *Enhancing Adult Motivation to Learn* (Wlodkowski, 2008) and *Diversity and Motivation: Culturally Responsive Teaching in College* (Ginsberg & Wlodkowski, 2009).

5. The *out-of-classroom* condition received a rating of 84.18%, a "B" in academic grading terms. The University can improve this condition through efforts to assist

students in developing team learning environments that better provide learners with feelings of respect and connectedness. These efforts can be implemented through a combination of the following strategies:

   a. explicitly identify norms and participation guidelines for the team

   b. for each assignment, clearly reiterate learning objectives and goals

   c. recognize role as learning co-facilitator through the demonstration of cooperative intentions to aid learning

   d. jointly identify the relationship of what is being learned to learners' personal lives and situations

   e. routinely assess and verbalize current expectations, needs, goals, and previous experience as it relates to a given course

   f. provide ample opportunity for multidimensional sharing

   g. acknowledge different ways of knowing, different languages, and different levels of knowledge or skill among

6. The *out-of-classroom attitude* received a rating of 78.16%, a "C" in academic grading terms. The University can improve this condition through efforts to assist students in developing more favorable dispositions toward learning through personal relevance and volition. Efforts can be implement through a combination of the following strategies:

   a. recognize role as learning co-facilitator through the demonstration of cooperative intentions to aid learning

   b. reiterate instructor's rationale for all mandatory assignments

   c. acknowledge different ways of knowing, different languages, and different levels of knowledge or skill among learners

   d. discuss and minimize any negative conditions that surround the subject

   e. assist each other in scaffolding complex concepts

   f. reiterate instructor's model or jointly develop a new model to demonstrate expected learning

7. The *out-of-classroom meaning* condition received a rating of 76.03%, a "C" in academic grading terms. The University can improve this condition through efforts to assist students in better providing appropriate challenge, engaging

126

learning, and opportunities for learners to interject individual perspectives and values in their learning activities. Implementation can occur through a combination of the following strategies:

 a. all team members provide frequent and equitable response opportunities for all team members

 b. assure all team members realize their accountability for what they are learning

 c. routinely connect learning activities through jointly created concepts maps

 d. consistently allow variety in personal presentation style and deliverables a applicable

 e. all team members use critical questions to stimulate engaging and challenging reflection and discussion

 f. engage in appropriate humor appropriately, liberally, and frequently

 g. selectively use examples, analogies, metaphors and stories in deliverables, as appropriate

8. The *out-of-classroom competence* condition received a rating of 78.83%, a "C" in academic grading terms. The University can improve this condition through efforts to assist students in enhancing learners' understanding of how effectively they are learning and how that learning benefits their lives and communities. These efforts can be implemented through a combination of the following strategies:

 a. provide effective feedback

 b. avoid cultural bias and promote equity in assessing each other's work

 c. in all team deliverables, provide opportunity for demonstration of learning in ways that reflect strengths and multiple sources of knowing

 d. provide sufficient opportunity to construct relevant insights and connections

Recommendations for Further Adult Learning and Development Research

Based on the results of this study, the following suggestions for further research are offered:

1. The creation of an online instrument and invitation for use by all institutions of higher learning. Because the instrument is comprised of two separate scales, individually evidenced as valid and reliable, those institutions without cohort-based learning can also benefit from the instrument when revised to exclude the out-of-classroom scale. Wide-spread use of the scale will provide:

   a. Further evidence of validity and reliability, as well as increased incidence of normality and homogeneity of variance assumptions—thereby facilitating parametric analysis such as ANOVA (analysis of variance) and MANOVA (multiple-factor analysis of variance)

   b. Further insight into national levels of conditions across various forms of higher education learning

   c. Peer-institution comparisons via percentile reporting structures

   d. Institution-specific measurement and benchmarking information benefiting American Quality Improvement Program, Continuous Quality Improvement, or Strategic Enrollment Management methodologies

   e. Ability to contribute to the following recommendations

2. Further exploration of condition importance by degree level stands to increase the precision of efforts to enhance motivation to learn.

3. Further research on forming and developing high-learning teams stands to benefit not only higher education but any environment where team learning is required.

4. Qualitative research to further explore and understand demographic differences in perceptions of the conditions across more diverse samples.

5. Longitudinal research to explore how perceptions of the conditions change throughout the life of a cohort.

Summary

Through the creation of the *Motivational Conditions in Learning Instrument*[©] (MCLI[©]), this study produced a valid and reliable instrument for quantitatively assessing current levels of conditions eliciting intrinsic motivation to learn for all learners in both classroom and out-of-classroom learning environments. The study further produced benchmarks for each condition (inclusion, attitude, meaning, and competence) in both environments (classroom and out-of-classroom team learning); and then documented the identification of differences across demographic categories and relationships between measures of condition and learner-perceived overall level of current learning. Finally, the study provided insight into learner experiences impacting motivation to learn.

Use of the MCLI[©] provides a quantitative and comprehensive assessment of the level of conditions present in learning environments. Measuring, benchmarking, and identifying differences across demographic and degree-level categories facilitates understanding and reporting of conditions, as well as evaluating and evidencing improvements over time. The ability to quantitatively demonstrate improvements in equitable learning conditions is a significant benefit to institutions focused on diversity within North Central Association of Colleges and Schools' American Quality Improvement Program (AQIP), Continuous Quality Improvement (CQI), or strategic enrollment management methodologies.

An additional strength of the instrument is it's alignment with Wlodkowski and Ginsberg's (1995) *Motivational Framework for Culturally Responsive Teaching.* Because of this alignment, educators and co-facilitators have access to relevant and immediately applicable strategies for enhancing adult motivation to learn through any condition (inclusion, attitude, meaning, and/or competence) assessed as benefiting from improvement. In *Enhancing Adult Motivation to Learn* (2008), Wlodkowski offers realistic teaching methods and deliberate actions that enhance motivation to learn for all learners.

In equitable learning environments, the conditions should be sufficiently present and there should be no significant differences in learner-perceived levels of conditions, across any given demographic categories. Results of the study provided the University with measures and benchmarks indicating above average ratings with some differences occurring across demographic categories. Results also indicated that classroom conditions more positively

correlate with learner-perceived level of learning than does out-of-classroom conditions; and subscale correlations differ in magnitude within demographic and degree-level subsamples. Finally, results provided the University with learner insights into experiences positively or negatively impacting motivation to learn in classroom and out-of-classroom environments.

Results of the study also provided recommendations for improved practice within both the University and other institutions of higher learning. Recommendations for the University aligned suggested strategies for improving conditions in both classroom and out-of-classroom environments. Just as the University in this study garnered important indicators of current conditions eliciting intrinsic motivation to learn within classroom and out-of-classroom environments, other higher learning institutions can benefit from an understanding of the current state of conditions within their learning environments. Because the instrument is comprised of two separate scales, individually evidenced as valid and reliable, those institutions without cohort-based learning can also benefit from the instrument when revised to exclude the out-of-classroom scale.

Finally, this chapter provided recommendations for further research including providing the instrument as an online instrument for use by all institutions of higher learning. Wide-spread use of the instrument will facilitate opportunity for additional evidence of reliability and validity, increased evidence of normality and homogeneity of variance required of parametric analysis, and support further research pertaining to both cohort-based learning and motivation to learn. Additional recommendations included further research on condition importance by degree level and on forming and developing high-learning teams.

References

Alfred, M.V. (2000). The politics of knowledge and theory construction in adult education: A critical analysis from an africentric feminist perspective. *Proceeding of the Adult Education Research Conference.* Posted January 1, 2000. http://www.adulterc.org/Proceedings/2000/alfredm1-final.PDF.

Alkadry, M.G., & Tower, L.E. (2006). Unequal pay: The role of gender. *Public Administration Review*, 66, 888-898.

Alreck, P. L., & Settle, R. B. (1995). *The survey research handbook* (2nd ed.).Boston: Irwin McGraw-Hill.

Ary, D., Jacobs, L. C., Razavieh, S., & Sorensen, C. (2006). *Introduction to research in education* (7th ed.). Belmont, CA: Thomson Wadsworth.

Aslanian, C. B. (2001). *Adult students today*. New York: The College Board.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Worth Publishers.

Barnett, B. G., & Caffarella, R. S. (1992, October). *The use of cohorts: A powerful way for addressing issues of diversity in preparation programs*. Paper presented at the Annual Meeting of the University Council for Educational Administration, Minneapolis, MN.

Basom, M., Yerkes, D., Norris, C., & Barnett, B. (1995). *Exploring cohorts: Effects on principal preparation and leadership practice*. St Louis, MO: Danforth Foundation. Retrieved from http://www.eric.ed.gov.er.lib.k-state.edu/PDFS/ED387857.pdf

Belenky, M. F., Clinchy, B. M., Goldberger, N. R., & Tarule, J. M. (1997). *Women's ways of knowing: The development of self, voice, and mind*. New York: Basic Books.

Bem, S. L. (1993). *The lenses of gender: Transforming the debate on sexual inequality*. New Haven, Conn.: Yale University Press.

Bennett, J. M., & Salonen, R. (2007, March/April). Resource review: Intercultural communication and the new American campus. *Change*, 39, 46-50.

Bernstein, R. J. (1985). Introduction. In Richard J. Bernstein (Ed.). *Habermas and modernity*. Cambridge, MA: The MIT Press.

Boshier, R. (1973). Educational participation and dropout: A theoretical model. *Adult Education*, 23, 255-282.

Boucouvalas, M. (1988). An analysis and critique of the concept of self in self directed learning: Toward a more robust construct for research and practice. In M. Zukas (Ed.), *Papers from the Transatlantic Dialogue: SCUTREA 1988* (pp. 56-61). Leeds, England: School of Continuing Education, University of Leeds.

Brookfield, S. (1986). *Understanding and facilitating adult learning*. San Francisco: Jossey-Bass.

Brookfield, S. (1987). *Developing critical thinkers.* San Francisco: Jossey-Bass.

Brookfield, S. (1995). *Becoming a critically reflective teacher*. San Francisco: Jossey-Bass.

Brookfield, S. (2003). A critical theory perspective on accelerated learning. *New Directions for Adult and Continuing Education*, 97, 73-82.

Brookfield, S. (2005). *The power of critical theory.* San Francisco: Jossey-Bass.

Brooks, A. K. (2002). Transformation. In E. Hayes and D. D. Flannery (Eds.). *Women as learners: The significance of gender in adult learning* (pp. 139-154). San Francisco: Jossey-Bass.

Brooks, A. K., & Edwards, K. (1997). Rewriting the boundaries of social discourse: Collaborative inquiry into women's sexual identity development. *Proceedings of the SCUTREA Conference*, no 27. London: University of London.

Brooks, P. (1998). Cohort communities in higher education: The best examples of adult education. *Proceedings of the 39th Adult Education Research Conference*. San Antonio, TX. Retrieved from http://www.eric.ed.gov.er.lib.k-state.edu/PDFS/ED426247.pdf

Candy, P. C. (1991). *Self-direction for lifelong learning*. San Francisco: Jossey-Bass.

Carifio, J. & Perla, R. (2007). Ten common misunderstandings, misconceptions, persistent myths, and urban legends about Likert scales and Likert response formats and their antidotes. *Journal of Social Sciences*, 3(3), 106-116.

Cass, V. C. (1979). Homosexual identity: A concept in need of definition. *Journal of Homosexuality*, 9, 214-235.

Cervero, R. M., & Wilson, A. L. (1994). *Planning responsibly for adult education: A guide to negotiating power and interests*. San Francisco: Jossey-Bass.

Chene, A. (1983). The concept of autonomy: A philosophical discussion. *Adult Education Quarterly*, 34, 38-47.

Christensen, C. M., Horn, M. B., & Johnson, C. W. (2008). *Disrupting class*. New York: McGraw Hill.

Christianson, S. (Ed.), (1992). *The handbook of emotion and memory: research and theory*. Hillsdale, N.J.: Erlbaum.

Collins, R. A. (2005). Cognitive development of adult undergraduate students in accelerated or intensive programs. (Doctoral dissertation, Kansas State University, 2005). *Dissertation Abstracts International* (UMI No. 3170962).

Commission for Accelerated Programs. (2010). Accelerated learning. Retrieved December 24, 2010, from http://www.capnetwork.org/modules.php?op=modload&name=FAQ&file= index&myfaq=yes&id_cat=2

Converse, J. M., & Pressor, S. (1986). Survey questions: handcrafting the standardized questionnaire. *A Sage University Paper: 63*, Thousand Oaks, CA: Sage Publications, Inc.

Craik, F. I. M. (2002). Attention and aging. In D. Park and N. Schwarz (Eds.), *Cognitive aging: A primer*. Bridgeport, NJ: George H Buchanan Co.

Cranton, P. (1996). *Professional development as transformative learning*. San Francisco: Jossey-Bass.

Cronbach, L. J., & Meehl, P.E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302.

Cross, K. P. (1981). *Adults as learners: Increasing participation and facilitating learning*. San Francisco: Jossey-Bass.

Cross, W. E. (1991). *Shades of black: Diversity in African American identity*. Philadelphia: Temple University Press.

Cross, W. W., Jr. (1995). The psychology of nigrescence: revisiting the Cross model. In J. G. Ponterrotto, J. M. Casas, L. A. Suzuki, and C. M. Alexander (Eds.), *Handbook of multicultural counseling*. Thousand Oaks, CA: Sage.

Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York: Harper Collins.

Csikszentmihalyi, M. (1997). Finding flow: The psychology of engagement with everyday life. New York: Basic Books.

D'Augelli, A. R. (1994). Identity development and sexual orientation: Toward a model of lesbian, gay, and bisexual development. In E. J. Trickett, R. J. Watts, & D. Birman

(Eds.), *Human diversity: Perspectives on people in context* (pp. 312-333). San Francisco: Jossey-Bass.

Daniel, E. L. (2000). A review of time-shortened courses across disciplines. *College Student Journal*, 34, 298-308.

Davis, B. G. (1992). *Tools for teaching*. San Francisco: Jossey-Bass.

Debold, E. (2002). Epistemology, fourth order consciousness, and the subject-object relationship: or, how the self evolves with Robert Kegan. [Electronic Version]. *Enlightenment Magazine*, Fall-Winter. Retrieved from www.enlightenment.org/magazine/j22/kegan.asp?pf=1.

Dewey, J. (1938). *Experience and education*. New York: Collier Books.

Dillman, D. A. (2000). *Mail and internet surveys: The tailored design method*. New York: John Wiley & Sons, Inc.

Donaldson, J. P. (2001, April). *Accelerated degree programs: Policy implications and critique: What we know about adult learners and its implications for policy*. Paper presented at the Annual Meeting of the American Educational Research Association, Seattle, WA.

Drago-Severson, E., Helsing, D., Kegan, R., Popp, N., Broderick, M., & Portnow, K. (2001). The power of a cohort and of collaborative groups. *Focus on Basics*, 5(B), 15-22. Retrieved from http://www.ncsall.net/fileadmin/resources/fob/2001/fob_5b.pdf

Eckel, P. D., & King, J. E. (2004). *An overview of higher education in the United States: Diversity, access, and the role of the marketplace*. Washington DC: American Council on Education.

Elliot, A. J., & Dweck, C. S. (Eds.). (2005). *Handbook of competence and motivation.* New York: Guilford Press.

Ellis, A. (1989). Rational-emotive therapy. In R. J. Corsini and D. Wedding (Eds.). *Current Psychotherapies*. Itasca, IL: Peacock.

Erikson, E. H. (1982). *The life cycle completed: A review*. New York: W. W. Norton and Company.

Evans, N. J., Forney, D. S., & Guido-DiBrito, F. (1998). *Student development in college: Theory, research, and practice*. San Francisco: Jossey-Bass.

Fenimore, M. A. (1997). My brain is still working!: Conversations with centenarians about learning in adulthood. *Canadian Journal for the Study of Adult Education*, 11(1), 57-70.

Flannery, D. D. (2002). Identity and self esteem. In E. Hayes and D. D. Flannery (Eds.). *Women as learners: The significance of gender in adult learning* (pp. 53-78). San Francisco: Jossey-Bass.

Flannery, D. D. and Hayes, E. (2002). Women's learning: A kaleidoscope. In E. Hayes and D. D. Flannery (Eds.) *Women as learners: The significance of gender in adult learning* (pp. 1-22). San Francisco: Jossey-Bass.

Freire, P. (1970). *Pedagogy of the oppressed*. New York: Seabury Press.

Freire, P. (1973). *Education for critical consciousness*. New York: Seabury Press.

Gardner, H. (2006). *Multiple intelligences: New horizons*. New York: Basic Books.

Gardner, H. (2007). *Five minds for the future.* Boston: Harvard Business School Press.

Geertz, C. (1973). *The interpretation of cultures*. New York: Basic Books.

George, E., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide an reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.

Ginsberg, M. B., & Wlodkowski, R. J. (2009). *Diversity and motivation: Culturally responsive teaching in college* (2nd ed.). San Francisco: Jossey-Bass.

Gliem, J. A., & Gliem, R. R. (2003, October). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*. Paper presented at the Midwest Research-to-Practice Conference in Adult, Continuing, and Community Education, The Ohio State University, Columbus, OH.

Goldstein, G., & Hersen, M. (1984). *Handbook of psychological assessment*. New York: Pergamon Press.

Goleman, D. (1995). Emotional intelligence. New York: Bantam Books.

Gramsci, A. (1971). *The prison notebooks*. New York: International Publishers.

Gray, E. (2011, October 13). Equal pay day: AAUW releases state by state wage gap rankings. *The Huffington Post*. http://www.huffingtonpost.com/2012/04/16/equal-pay-day-gender-wage-gap-rankings_n_1430160.html.

Guglielmino, L. M. (1977). Development of the self-directed learning readiness scale. Unpublished doctoral dissertation, University of Georgia.

Habermas, J. (1972). *Knowledge and human interests*. Partsmouth, N.H.: Heinemann
    Educational Books.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*,
    77(1), 81-112.

Hays, P. (2001). *Addressing cultural complexities in practice: A framework for clinicians and
    counselors.* Washington, DC: American Psychological Association.

Heine, J., Lehman, D. R., Peng, K., & Greenholtz, J. (2002). What's wrong with cross-cultural
    comparisons of subjective Likert scales: The reference-group effect. *Journal of
    Personality and Social Psychology*, 82, 903-918.

Helms, J. D. (1995). An update of Helm's white and people of color racial identity models. In J.
    G. Ponterotto, J. M. Casas, L. A. Suzuki, and C. M. Alexander (Eds.), *Handbook of
    multicultural counseling*. Thousand Oaks, CA: Sage.

Henry, G. T., & Basile, K. C. (1994). Understanding the decision to participate in formal adult
    education. *Adult Education Quarterly*, 44(2), 64-82.

Hill, L. H. (2001). The brain and consciousness: Sources of information for understanding adult
    learning. *The New Update on Adult Learning Theory*, 89, 73-82.

Hofstede, G. (2005). *Cultures and organizations* (3rd ed.). New York: McGraw-Hill.

Hooks, B. (1990). *Yearning: race, gender, and cultural politics*. Boston: South End Press.

Houle, C. O. (1988) *The inquiring mind* (2nd ed.). Madison: University of Wisconsin Press,
    Norman: Oklahoma Research Center for Continuing Professional and Higher Education.

Howell, D. C. (2004). *Fundamental statistics for the behavioral sciences* (5th ed.). Belmont, CA:
    Thomson Learning.

Huck, S. W. (2004). *Reading statistics and research* (4th ed.). Boston: Pearson Education, Inc.,
    Allyn and Bacon.

Humphries, B. (1988). Adult learning in social work education: Towards liberation or
    domestication, *Critical Social Policy*, 23, 4-21.

Imel, S. (2002). Adult learning in cohort groups. Practice application brief, No. 24. Columbus,
    OH: ERIC Clearinghouse on Adult, Career, and Vocational Education. (ERIC Document
    Reproduction Service No. ED472604)

Jamieson, S. (2004). Likert scales: How to (ab)use them. *Medical Education*, 38, 1212-1218.

Johnson, A. G. (2001). *Privilege, power, and difference*. Mountain View, CA: Mayfield
  Publishing Company.

Jordan, J. V. (1997). A relational perspective for understanding women's development. In J. V.
  Jordan (Ed.), *Women's growth in diversity*. New York: Guilford Press.

Josselson, R. (1987). *Finding herself: Pathways to identity development in women*. San
  Francisco: Jossey-Bass.

Kasworm, C. (2003a). Adult meaning making in the undergraduate classroom. *Adult Education
  Quarterly*, 53(2), 81-98.

Kasworm, C. (2003b). From the adult student's perspective: Accelerated degree programs. In R.
  Wlodkowski and C. Kasworm (Eds.), Accelerated learning for adults: The promise and
  practice of intensive educational formats. *New Directions for Adult and Continuing
  Education*, 97, 17-27.

Kasworm, C., Polson, C., & Fishback, S. J. (2002). *Responding to adult students in higher
  education*. Malabar, FL: Krieger Publishing Company.

Kegan, R. (1994). *In over our heads: The mental demands of modern life.* Cambridge, MA:
  Harvard University Press.

Kilgore, D. W. (2001). Critical and postmodern perspective on adult learning. *The New Update
  on Adult Learning Theory*, 89, 73-82.

King, P. M., & Kitchener, K. S. (1994). *The development of reflective judgment in adolescence
  and adulthood*. San Francisco: Jossey Bass.

Kleinginna, P., Jr., & Kleinginna, A. (1981). A categorized list of motivation definitions, with
  suggestions for a consensual definition. *Motivation and Emotion*, 5, 263-291.

Knowles, M. S. (1968). Andragogy, not pedagogy. *Adult Leadership.* 16(10), 350-352, 386.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy*
  (2nd ed.). New York: Cambridge Books.

Knowles, M. S. (1989). *The making of an adult educator*. San Francisco: Jossey-Bass.

Knowles, M. S. (1990). *The adult learner: A neglected species* (4th ed.). Houston: Gulf
  Publishing.

Knowles, M. S., & Associates. (1984). *Andragogy in action: Applying modern principles of
  adult learning.* San Francisco: Jossey-Bass.

Knowles, M. S., & Knowles, H. F. (1972). *Introduction to group dynamics*. New York City: National Board of Young Men's Christian Associations, Associations Press.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, N.J.: Prentice Hall, 1984.

Kramarae, C. (2001). The third shift: Women learning online. *American Association of University Women*. Washington, D.C.

Krathwohl, D. R. (2004). *Methods of educational and social science research*: *An integrated approach.* Long Grove, IL: Waveland Press, Inc.

Lawrence, R. L. (1997). The interconnection web: Adult learning cohorts as sites for collaborative learning, feminist pedagogy and experiential ways of knowing. *Proceedings of the Adult Education Research Conference*. Retrieved December 26, 2010 from http://nlu.nl.edu/academics/cas/ace/facultypapers/RandeeLawrence_Interconnecting.cfm

LeDoux, J. (1996). *The emotional brain*. New York: Simon and Schuster.

Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: planning and design.* Boston: Pearson.

Levinson, D. J., & Levinson, J. D. (1996). *Seasons of a woman's life*. New York: Random House.

Lindeman, E. (1961). *The meaning of adult education*. New York: Harvest House.

Lumina Foundation (2009). *What we know about access, persistence, and success for adult learners in postsecondary education: A review of contemporary literature*. Retrieved January 6, 2011 from http://www.luminafoundation.org/research/endnotes/wwkaal_fulldoc.html

MacKeracher, D. (2004). *Making sense of adult learning* (2nd ed.). Toronto: University of Toronto Press Incorporated.

Markus, H.R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review, 98(2), 224-253.

McCarthy, J., Trenga, M. E., & Weiner, B. (2005). The cohort model for graduate student learners: Faculty-student perspectives. *Adult Learning*, 16(3), 22-27.

Merriam, S. B., & Caffarella, R. S. (1999). Learning in adulthood (2nd ed.). San Francisco: Jossey-Bass.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. (2007). *Learning in adulthood* (3rd ed.). San Francisco: Jossey-Bass.

Mezirow, J. (1978). Perspective transformation. *Adult Education*, 28, 100-110.

Mezirow, J. (1981). A critical theory of adult learning and education. *Adult Education*, 32(1), 3-24.

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

Mezirow, J. (2000). *Learning as transformation: critical perspectives on a theory in progress.* San Francisco: Jossey-Bass.

Miller, H. L. (1967). *Participation of adults in education: A force-field analysis*. Boston: Center for the Study of Liberal Education for Adults, Boston University.

National Center for Education Statistics. (1996). *Nontraditional undergraduates: Trends in enrollment from 1986 to 1992 and persistence and attainment among 1989-1990 beginning postsecondary students*. Washington DC: United States Government Printing Office, Office of Educational Research and Improvement. (NCES 97-578)

National Center for Education Statistics. (2007). *The condition of education: 2007*. Washington, DC: United States Government Printing Office, Office of Educational Research and Improvement. (NCES 2007-064)

National Center for Education Statistics. (2008). *Standards for defining race and ethnicity data*. Washington, DC: United States Government Printing Office, Office of Educational Research and Improvement. (NCES Standard 1-5)

National Center for Education Statistics. (2009). *Projections of education statistics to 2018*. Washington, DC: United States Department of Education, Office of Educational Research and Improvement. (NCES 2009-062)

National Center for Education Statistics. (2010). *Digest of education statistics: 2009*. Washington, DC: United States Department of Education, Office of Educational Research and Improvement. (NCES 2010-013)

National Center for the Study of Adult Learning and Literacy. (2001). *Focus on basics: Connecting research and practice*, 5(B), p. 5-6.

Norris, C., & Barnett, B. (1994, October). *Cultivating a new leadership paradigm: From cohorts to communities.* Paper presented at the annual meeting of the University Council for Educational Administration, Philadelphia, PA. Retrieved December 26, 2010 from http://www.eric.ed.gov.er.lib.k-state.edu/PDFS/ED387877.pdf

O'Neil, H. F., & Drillings, M. (Eds.). (1994). *Motivation: Theory and research.* Hillsdale, N.J.: Lawrence Erlbaum Associates, Inc. Publishers.

Oppenheim, A. N. (1992). *Questionnaire design, interviewing and attitudinal measurement* (New ed.). London: Pinter Publishers Ltd.

Padover, S. K. (1939). *Thomas Jefferson on democracy*. New York: Appleton-Century Company, Inc.

Pell, G. (2005). Use and misuse of Likert scales [Letters to the editor]. *Medical Education*, 39, 970.

Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108(3), 499-514.

Piaget, J. (1972). Intellectual evolution from adolescent to adulthood. *Human Development*, 16, 346-370.

Pietrykowski, B. (1996). Knowledge and power in adult education: beyond Freire and Habermas. *Adult Education Quarterly*, 46(2), 82-97.

Pink, D. H. (2009). Drive. New York: Riverhead Books, Penguin Group, USA.

Plaut, V. C., & Markus, H. R. (2005). The inside story: a cultural-historical analysis of being smart and motivated, American style. In *Handbook of Competence and Motivation*. NewYork: Guilford.

Raaijmakers, Q. A. W., van Hoof, A., Hart, H. T., Verbogt, T., & Vollebergh, W. A. (2000). Adolescents' midpoint response on Likert-type scale items: neutral or missing value? *International Journal of Public Opinion Research*, 12, 208-216.

Reynolds, K. C., & Hebert, F. T. (1995). Cohorts, formats and intensive schedules: Added involvement and interaction for continuing higher education. *Journal of Continuing Higher Education*, 43(3), 34-41.

Rogers, E. M., Hart, W. B., & Yoshitaka, M. (2002). Edward T. Hall and the history of intercultural communication: The United States and Japan. *Keio Communication Review*, 24, 1-24.

Rogers, W. A. (2002). Attention and aging. In D. Park and N. Schwarz (Eds.), *Cognitive aging: A primer*. Bridgeport, NJ: George H Buchanan Co.

Rubenson, K. (1977). *Participation in recurrent education: A research review*. Paper presented at a meeting of national delegates on Developments in Recurrent Education, Organization for Economic Cooperation and Development, Paris, 1977.

Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci and R. M. Ryan (Eds.), *Handbook of Self-determination Research*. Rochester, NY: University of Rochester Press.

Saltiel, I. M., & Russo, C. S. (2001). *Cohort programming and learning: Improving educational experiences for adult learners*. Malabar, FL: Kreiger.

Sass, E. J. (1989). Motivation in the college classroom: what students tell us. *Teaching of Psychology*, 16, 86-94.

Schaie, K. W. & Willis, S. L. (2002). *Adult development and aging* (5th ed.). Englewood Cliffs, NJ: Prentice Hall.

Scott, P. A. (1996). Attributes of high quality intensive course learning experiences: Student voices and experiences. *College Student Journal*, 30, 69-7.

Scott, P. A. (2003). Attributes of high-quality intensive courses. *New Directions for Adult and Continuing Education*, 97, 29-38.

Scott, P. A., & Conrad, C. E. (1991, March 4). *A critique of intensive courses and an agenda for research*. Paper presented at Wisconsin University Division of Summer Sessions and Inter-College Programs. Madison, WI. (ERIC Document Reproduction Service No. ED 337 087)

Shweder, R. A., & Bourne, E. J. (1982). Does the concept of the person vary cross-culturally? Originally from A. Marsella and G. White (Eds.). *Cultural Conceptions of Mental Health and Therapy*, Dordrecht, Holland: Reidel. Reprinted in Shweder, R.A. *Thinking through Cultures: Expeditions in Cultural Psychology*, Cambridge, MA: Harvard University Press, 1991.

Singh, P., & Martin, L. R. (2004). Accelerated degree programs: Assessing student attitudes and intentions. *Journal of Education for Business*, 79, 299-305.

Sivan, E. (1986). Motivation in social constructivist theory. *Educational Psychologist*, 21, 209-233.

Sousa, D. A. (2006). *How the brain learns* (3rd ed.). Thousand Oaks, CA: Corwin.

Spaid, R., & Duff, E. D. (2009). Working adults in accelerated cohorts: More than a learning community. *The Journal of Continuing Higher Education*, 57, 104-109.

StatTrek. (2010). *Sample size within strata*. Retrieved November 1, 2010, from http://stattrek.com/Lesson6/SampleSizeStrata.aspx

Taylor, K., Marienau, C., & Fiddler, M. (2000). *Developing adult learners*. San Francisco: Jossey-Bass.

Taylor, E. W. (2001, May-June). Transformative learning theory: A neurobiological perspective of the role of emotions and unconscious ways of knowing. *International Journal of Lifelong Education*, 20, 218-235.

Tennant, M. C. (1988). *Psychology and adult learning*. New York: Routledge.

Tennant, M. C., & Pogson, P. (1995). *Learning and change in the adult years: A developmental perspective*. San Francisco: Jossey-Bass.

Thernstrom, A., & Thernstrom S. (2003). *No excuses. Closing the racial gap in learning*. New York: Simon & Schuster.

Tisdell, E. J. (1995). *Creating inclusive adult learning environments: Insights from multicultural education and feminist pedagogy*. Information series No. 361. Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education.

Trouth, C. (2009). *Rating scale design in surveys: Should I use an odd or even number of response categories?* Retrieved from University of Denver, Office of Institutional Research and Assessment Web site: http://www.du.edu/ir/

Unequal pay no myth to America's female workforce. *Politico*. Retreived September 15, 2012. http://www.politico.com/news/stories/0612/77025.html.

Van Scyoc, L. J., & Gleason, J. (1993). Traditional or intensive course lengths? A comparison of outcomes in economics learning. *Journal of Economic Education*, 24(1), 15-22.

Walberg, H. J., & Uguroglu, M. (1980). Motivation and educational productivity: Theories, results, and implications. In L. J. Fyans Jr. (Ed.). *Achievement Motivation: Recent Trends in Theory and Practice*.

Watson, L. W., Terrell, M. C., Wright, D. J., & Associates (2002). *How minority students experience college: Implications for planning and policy*. Sterling, VA: Stylus Publishing, LLC.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.

Wlodkowski, R. J. (2003a). Accelerated learning in colleges and universities In R. Wlodkowski and C. Kaswork (Eds.), Accelerated learning for adults: The promise and practice of intensive educational formats. *New Directions for Adult and Continuing Education*, 97, 5-15.

Wlodkowski, R. J. (2003b). Fostering motivation in professional development programs. *New Directions for Adult and Continuing Education*, 98, 39-47.

Wlodkowski, R. J. (2008). *Enhancing adult motivation to learn: a comprehensive guide for teaching all adults* (3rd ed.). San Francisco: Jossey-Bass.

Wlodkowski, R. J., & Ginsberg, M. B. (1995). *Diversity and motivation: Culturally responsive teaching.* San Francisco: Jossey-Bass.

Wlodkowski, R. J., Gonzales, J. R., & Mauldin, J. E. (2002). *Accelerated learning research project: Phase 5*. Arvada, CO: Center for the Study of Accelerated Learning, Regis University School for Professional Studies.

Wlodkowski, R. J., Mauldin, J., & Gahn, S. (2001). Learning in the fast lane: Adult learners' persistence and success in accelerated college programs. *Lumina Foundation for Education New Agenda Series*, 4(1).

Wlodkowski, R. J., & Stiller, J. (2005). *Accelerated learning online research project: Phase 1*. Arvada, CO: Center for the Study of Accelerated Learning, Regis University School for Professional Studies.

Wlodkowski, R. J., & Westover, T. N. (1999). Accelerated courses as a learning format for adults. *The Canadian Journal for the Study of Adult Education*, 13(1), 1-20.

Wolfe, A. (1998, December 4). How a for-profit university can be invaluable to the traditional liberal arts. *Chronicle of Higher Education*, pp. B4-B5.

Zikmund, W. G. (1997). *Business research methods* (5th ed.). Fort Worth: The Dryden Press, Harcourt Brace College Publishers

Zull, J. E. (2002). *The art of changing the brain: Enriching the practice of teaching by exploring the biology of learning.* Sterling, VA: Stylus.

Appendix A - Application to Conduct Research at
Kansas State University

Committee for Research Involving Human Subjects (IRB)

Application for Approval Form

Last revised on April 2010

ADMINISTRATIVE INFORMATION:

- **Title of Project:** (if applicable, use the exact title listed in the grant/contract application)
  Motivational Conditions Experienced by Diverse Adult Learners in Accelerated Degree Programs with Cohort-Based Learning

- **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 Fishback	**Degree/Title:**	Dr.
Department:	Education Leadership	**Campus Phone:**	785-532-5554
Campus Address:	354 Bluemont Hall	**Fax #:**	
E-mail	jfishbac@ksu.edu		

- **Contact Name/Email/Phone for Questions/Problems with Form:**   **Ms. Pamela K. Barnes (620) 931-4142 pbarnes@ksu.edu**

- **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)**

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: Motivational Conditions Experienced by Diverse Adult Learners in Accelerated Degree Programs with Cohort-Based Learning**
Date:	**1/10/11**

MODIFICATION
Is this a modification of an approved protocol? ☐ **Yes** ☒ **No If yes, please comply with the following:**

If you are requesting a modification or a change to an IRB approved protocol, <u>please provide a concise description of all of the changes</u> that you are proposing in the following block. Additionally, please highlight or bold the proposed changes in the body of the protocol where appropriate, so that it is clearly discernable to the IRB reviewers what and where the proposed changes are. This will greatly help the committee and facilitate the review.

<u>NON-TECHNICAL SYNOPSIS</u> (brief narrative description of proposal easily understood by nonscientists):
This dissertation involves survey data collection pertaining to motivational conditions experienced by adult learners both in their classroom environment and in their cohort interactions outside of the classroom. The data will be analyzed to determine differences in experiences across demographic factors and to determine strength of relationship between motivational condition scales and perceptions of overall program value.

I.   <u>BACKGROUND</u> (concise narrative review of the literature and basis for the study)**:**
Internal motivation and transformational learning are two predominant concepts within Adult Education Literature. Existing literature demonstrates significant evidence of cohort-based learning's potential to enhance adult motivation to learn and support transformational learning. Motivation is inseparable from learning, always cultural, and impeded when we feel excluded or marginalized in a learning environment. Previous studies examine adult motivation to learn within accelerated degree program classroom environments, but none to date examine adult motivation to learn within cohort based learning. This study will modify a previous instrument operationalizing Ginsberg & Wlodkowski's *Motivational Framework for Culturally Responsive Teaching*. Whereas the existing instrument is designed to collect attitudinal data about classroom experiences, this study's instrument is designed to collect attitudinal data about cohort based interactions as well as classroom experiences.

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 involves survey data collection from a multi-stratified (geographic and degree level) random sample of course sections underway at one Midwest private university at the time of study. The survey will be administered to all consenting students present in the selected course sections at the time of administration. The instrument includes attitudinal scales designed to acquire respondent perceptions of overall program value and motivation conditions experienced in (1) the classroom, and (2) cohort-based interactions. Additionally the survey instrument includes a short demographic section to ascertain respondent gender, age, and ethnicity; and a concluding open-ended question to garner specific experiences deemed either positive or negative to motivational conditions.

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 (1) measure and benchmark motivational conditions experienced in cohort-based interactions outside of the classroom, (2) explore differences between motivational conditions experienced in cohort-based learning interactions outside of the classroom and those in the classroom environment, (3) measure correlation between motivational conditions and learner reported overall program value; and (4) collect specific examples of experiences deemed positively or negatively impacting motivation to learn.

IV. **DESIGN AND PROCEDURES** (succinctly outline formal plan for study)**:**

A.	Location of study:	**Five Baker University School of Professional and Graduate Studies locations: Wichita, Topeka, and Overland Park, Kansas; North Kansas City and Lee's Summit, Missouri**
B.	Variables to be studied:	**DV: Overall program experience; Motivational Condition Scales: (1) classroom, and (2) cohort-based interactions outside of the classroom IV: Degree level, age, gender, ethnicity**
C.	Data collection methods: (surveys, instruments, etc – **PLEASE ATTACH**)	**Survey: Creation of the Motivational Conditions in Cohort-based Learning Instrument**
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.:	**1. Disinterest in participating 2. Discomfort with disclosing demographic data and reporting less than positive attitudes (reference group effect) 3. Absent during administration and researcher's inability to contact subject outside of class**
E.	List all biological samples taken: (if any)	**None**
F.	Debriefing procedures for participants:	**All participants will be asked to email the researcher if they would like to receive a study report upon completion of the project.**

V. **RESEARCH SUBJECTS:**

A.	Source:	**Adult learners enrolled in cohort-based accelerated degree programs at Baker University School of Professional and Graduate Studies**
B.	Number:	**Approximately 180**
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.)	**Multi-stratification sampling will occur. One course from each degree-level and each location. (3 degree levels x 5 locations for 15 total course sections) All students within the selected courses will be invited to participate in the study through in-person classroom administration by the researcher. There will be no inducements.**

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.

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 it is possible that some subjects may feel uncomfortable providing demographic data or honest responses to attitudinal statements if concerned about anonymity, or about attitudes outside of perceived group norms (reference group effect), respectively.

B. **Minimizing Risk:** (Describe specific measures used to minimize or protect subjects from anticipated risks.)

Risk is minimized as follows: (1) The researcher will personally administer and collect the survey, and guarantee subject anonymity, (2) The researcher will offer subjects the opportunity to complete the survey outside of the classroom environment, (3) Completed surveys will not include identification of the subject and thereby assures anonymity in entry, analysis, and reporting of data and results. (4) Neither the dissertation nor any other document or form will identify the subject's University of study.

C. **Benefits:** (Describe any reasonably expected benefits for research participants, a class of participants, or to society as a whole.)

Subject: Psychological benefit of contributing to an effort potentially impacting the cohort based learning experience for diverse adult learners in similar programs.
Social: Support of equal opportunity and social mobility as program administrators recognize the importance of training teams in practices that elicit internal motivation to learn for all team members; and in holding learning teams accountable for creating such an environment.

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.

Surveys do not include any form of subject identification thereby assuring all data entry, analysis, and reporting will be void of any form of subject identification. All original surveys will be held in an undisclosed location, known only to the researcher. Furthermore, the subject's university of attendance will not be identified in any documentation or form.

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://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.

The research presents no more than minimal risk of harm to subjects and involves no procedures for which written consent is normally required outside of the research context. The study is conducted through a survey instrument that includes a statement of voluntary participation, expected completion time, and appropriateness of skipping any questions to which responding would be uncomfortable.

Yes	No	
☐	☒	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)

Yes	No	
☒	☐	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).

Yes	No	
☒	☐	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.

Results and conclusions will be provided to all subjects that request, via email to the researcher, a study report.

*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.

IX. **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(s) 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 unfair pressure or coercion to participate in this project? If you answered this question "Yes," explain any <u>alternatives options</u> for class credit for potential human subject volunteers in your study. (It is also important to remember that: Students must be free to choose **not** to participate in research that they have signed up for **at any time** without penalty. Communication of their decision can be conveyed in any manner, to include **simply not showing up** for the research.)

Students in attendance during the survey administration will be advised that their participation is voluntary and they need not complete the survey if they are not inclined to do so.

☐	☒	j.	Are research subjects **audio** taped? If yes, how do you plan to protect the recorded information and mitigate any additional risks?
☐	☒	k.	Are research subjects' images being recorded (video taped, photographed)? If yes, how do you plan to protect the recorded information and mitigate any additional risks?

XI.　**CONFLICT OF INTEREST:** Concerns have been growing that financial interests in research may threaten the safety and rights of human research subjects.   Financial interests are not in them selves prohibited and may well be appropriate and legitimate. Not all financial interests cause 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's, institutions, 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, eg., grants, equipment, retainers for consultation and/or honoraria from the sponsor of this research?
☐	☒	d.	Do you receive payment per participant or incentive 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.

150

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:	Campus Email:
Dr. Sarah Jane Fishback, Principle Investigator	Educational Leadership	785-532-5554	jfishbac@ksu.edu

    B. Non-KSU Collaborators: (List all collaborators on your human subjects research project <u>not</u> 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 http://www.k-state.edu/research/comply/irb/forms/Unaffiliated%20Investigator%20Agreement.doc

    C.

    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:	Institutional Email:

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.cit.nih.gov/search).

    ☒   **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 # _____

    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#c2. 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)**

XIII. CLINICAL TRIAL ☐Yes ☒No
         (If so, please give product.)

Export Controls 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:

> http://www.k-state.edu/research/comply/ecp/index.htm

> **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

INVESTIGATOR ASSURANCE FOR RESEARCH INVOLVING HUMAN SUBJECTS
(Print this page separately because it requires a signature by the PI.)

P.I. Name: Dr. Sarah Jane Fishback

Title of Project: Motivational Conditions Experienced by Diverse Adult Learners in Accelerated Degree Programs with Cohort-based Learning

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://www.k-state.edu/research/comply/irb/training/index.htm.   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. Unanticipated or Adverse Event Form is located on the URCO website at: http://www.k-state.edu/research/comply/irb/forms/index.htm. In the case of a serious event, the Unanticipated or Adverse Events Form may follow a phone call or email contact with the URCO.**

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)

153

Appendix B - Kansas State University Research Compliance Office (URCO) Institutional Review Board (IRB) Approval of Research

University Research
Compliance Office
203 Fairchild Hall
Lower Mezzanine
Manhattan, KS 66506-1103
785-532-3224
Fax: 785-532-3278
www.k-state.edu/research/comply

TO: Sarah Jane Fishback   Proposal Number: 5717
        Educational Leadership
        354 Bluemont

FROM: Rick Scheidt, Chair
        Committee on Research Involving Human Subjects

DATE: February 1, 2011

RE: Proposal Entitled, "Motivational Conditions Experienced by Diverse Adult Learners in Accelerated
        Degree Programs with Cohort-Based Learning"

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State
University has reviewed the proposal identified above and has determined that it is EXEMPT from further
IRB review. This exemption applies only to the proposal - as written – and currently on file with the IRB.
Any change potentially affecting human subjects must be approved by the IRB prior to implementation and
may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the
Federal Policy for the Protection of Human Subjects, **45 CFR §46.101, paragraph b, category: 2,
subsection: ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that
research is exempt does not imply that investigators have no ethical responsibilities to subjects in such
research; it means only that the regulatory requirements related to IRB review, informed consent, and
assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the
Chair of the Committee on Research Involving Human Subjects, the University Research Compliance
Office, and if the subjects are KSU students, to the Director of the Student Health Center.

155

Appendix C - Written Consent by R. J. Wlodkowski

----- Original Message -----
From: "Raymond Wlodkowski" <RWlodkow@regis.edu>
To: "Pamela Barnes" <pbarnes@ksu.edu>
Cc: "Sarah Fishback" <jfishbac@k-state.edu>, lckansas@hotmail.com
Sent: Friday, March 18, 2011 12:59:37 PM
Subject: RE: Permissions request: Motivational Framework for Culturally Responsive Teaching

Hi Pam,

Thank you for your interest in the framework and the instrumentation that we've used in previous studies. I appreciate the research you are about to do. There is a real need to know more about cohort influences on adult learning and motivation.

You have my permission to reproduce the motivational framework and to use the survey we conducted in the three studies you cite below. The reference for the framework should be: Wlodkowski, R. J. & Ginsberg, M. B. (1995). Diversity & Motivation: Culturally Responsive Teaching. San Francisco: Jossey-Bass, p. (I think it's 34, I'm away from my office, please check). Used with permission.

Please cite your new survey as an adaption of the original and that it is used with permission. Please cite the 1999 study for this purpose.

One last request: I would appreciate a copy of your dissertation when it's complete. And, you will finish!

Good luck,

Raymond (Wlodkowski)

Appendix D - The Motivational Conditions in Learning Instrument[©]

Motivational Conditions in Learning

Before beginning the survey, please note that your participation is voluntary. Expected completion time is 20 minutes or less. Thank you for your valuable input.
(Parenthetical numbering added for analysis and review in this document.)

	Unsatisfactory	Below Average	Average	Above Average	Excellent
Section 1. Please mark the most accurate response to the following statement:					
Overall, my <u>current</u> level of learning in this program is:	①	②	③	④	⑤

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
Section 2. Please mark the most accurate response to the following statements regarding your current **classroom experiences**.					
(2.1) Students speak up about what is on their minds.	①	②	③	④	⑤
(2.2) It is easy to lose track of time.	①	②	③	④	⑤
(2.3) The attention of students is often on something other than classroom learning.	①	②	③	④	⑤
(2.4) Instructor feedback helps students improve in individually important ways.	①	②	③	④	⑤
(2.5) There is a sense of trust between students and the instructor.	①	②	③	④	⑤
(2.6) Classroom activities are not related to that which is important to students.	①	②	③	④	⑤
(2.7) Students care about one another.	①	②	③	④	⑤
(2.8) The learning process is interesting.	①	②	③	④	⑤
(2.9) The level of challenge required of learning is acceptable.	①	②	③	④	⑤
(2.10) Students are resistant to instructor feedback.	①	②	③	④	⑤
(2.11) The environment feels energized.	①	②	③	④	⑤
(2.12) Students are respectful toward one another.	①	②	③	④	⑤
(2.13) Activities will benefit students' work, or future work, outside of school.	①	②	③	④	⑤
(2.14) Students are not comfortable stating alternative views.	①	②	③	④	⑤
(2.15) When introduced, new course material is connected to what is already known.	①	②	③	④	⑤

Section 2 continued. Please mark the most accurate response to the following statements regarding your current **classroom experiences**.	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
(2.16) Students contribute their insights about new knowledge.	①	②	③	④	⑤
(2.17) Students find new material boring.	①	②	③	④	⑤
(2.18) It is difficult to express different opinions.	①	②	③	④	⑤
(2.19) Students use existing knowledge to help each other understand new material.	①	②	③	④	⑤
(2.20) Students help create a good learning environment.	①	②	③	④	⑤
(2.21) Students do not willingly put forth an effort to learn.	①	②	③	④	⑤
(2.22) Students find it easy to be themselves.	①	②	③	④	⑤
(2.23) Students can draw from individual interests when completing activities.	①	②	③	④	⑤

Section 3. Please fill in the most accurate response to the following statements regarding your current **out-of-classroom team learning experiences**:	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
(3.1) Team members are respectful toward one another.	①	②	③	④	⑤
(3.2) Team members are not comfortable stating alternative views.	①	②	③	④	⑤
(3.3) It is easy to lose track of time.	①	②	③	④	⑤
(3.4) The environment feels energized.	①	②	③	④	⑤
(3.5) Team activities will benefit members' work, or future work, outside of school.	①	②	③	④	⑤
(3.6) There is a sense of trust between team members.	①	②	③	④	⑤
(3.7) Team members use existing knowledge to help each other understand new material.	①	②	③	④	⑤
(3.8) Team work is not related to that which is important to members.	①	②	③	④	⑤
(3.9) Team members speak up about what is on their mind.	①	②	③	④	⑤
(3.10) Team members find new material boring.	①	②	③	④	⑤
(3.11) Team members work to help connect new material to what is already known.	①	②	③	④	⑤
(3.12) Team members are resistant to peer feedback.	①	②	③	④	⑤
(3.13) Team members can draw from individual interests when completing team assignments.	①	②	③	④	⑤
(3.14) The attention of team members is often on something other than team learning.	①	②	③	④	⑤

Section 3 continued. Please fill in the most accurate response to the following statements regarding your experience in **out-of-classroom team learning experiences**:	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
(3.15) The level of challenge required of learning is acceptable.	①	②	③	④	⑤
(3.16) Team members contribute their insights about new knowledge.	①	②	③	④	⑤
(3.17) The team learning process is interesting.	①	②	③	④	⑤
(3.18) It is difficult to express different opinions.	①	②	③	④	⑤
(3.19) Peer feedback helps team members improve in individually important ways.	①	②	③	④	⑤
(3.20) Team members find it easy to be themselves.	①	②	③	④	⑤
(3.21) Team members care about one another.	①	②	③	④	⑤
(3.22) Team members do not willingly put forth an effort to learn.	①	②	③	④	⑤
(3.23) Team members help create a good learning environment.	①	②	③	④	⑤

Section 4.
Please tell us more about you. This information will not be used to identify you; rather, it will be analyzed in combination with information from all participants completing the questionnaire. **You are guaranteed complete anonymity.**

1.   What is your gender? Please select one.   _____Male   _____Female

2.   What is your age in years? _____

3.   Which of the following best describes your racial or ethnic identification? Please select one.

    ____ Asian/Pacific Islander   ____ American Indian/Alaskan Native

    ____ Black/African American   ____ White/Caucasian

    ____ Hispanic/Chicano/Latino

    ____ Two or more races or ethnicities (please specify) _____

    ____ Other (please specify) _____

Section 5.

Please use the space below to share anything further regarding experiences, either in the classroom or in team learning interactions outside of the classroom, you feel would help us in understanding what enhances or hinders motivation to learn in your current degree program.

As example, you may think of a specific event that resulted in your feeling more energized toward your studies. Conversely, you may recall a specific situation that left you feeling less enthused about your efforts.

As a reminder, you can feel completely confident that your identity will not be disclosed in any research documentation or to any persons associated with the study.

Thank you for taking the time to complete this survey. Your assistance in providing information is appreciated and very beneficial in understanding motivational conditions in adult learning programs.

Appendix E - Response Process Study Synopsis

Response Process Study

Degree Level and Response Number	Question 1 After reviewing the survey statements now, and reflecting on your efforts in completing the survey during class, do any of the statements seem unclear to you?	Question 2 Was it difficult for you to separate your perceptions of classroom experiences with your perceptions of out-of-classroom team learning experiences?	Question 3 As you consider your motivation to learn in your classroom and out-of-classroom team learning experiences, do you believe anything was missing in the survey?	Question 4 Do you have any other suggestions for survey improvement?
A1	No problems with understanding. Only pause was to consider response.	Classroom and team meeting environments are different, and no problem separating the two in responding to statements. It did occur to me that the statements for the two sections could be different.	Nothing—maybe more questions about the instructor.	No. Nothing I can think of.
A2	No problems. Very clear and easy to complete.	No. Environments are distinct.	Nothing comes to mind.	Very good survey. Easy to complete and reasonable amount of time.
A3	No.	No problem. The dynamics are different in each environment.	No.	When can I call you "Dr. Pam."
A4	No.	Because we have a very good team, I believe our team environment and dynamic compliments our work in class.	No.	No. Good survey that didn't leave me wondering why so many questions or what it was about.
A5	Very straight-forward statements. Sections are helpful.	Very easy to keep separate.	Nothing.	No improvements. Length okay. Good survey.
B1	Very clear	Somewhat difficult to separate. Note that each class session varies in regard to the presence of the statement attributes.	Something about the "sheet of 5's" (The team evaluation used at the end of each course.) You can't be honest without upsetting your team. And you must work with these team members for several months, and you don't want to make waves.	The overall question was somewhat difficult to consider—to differentiate between "current" learning and learning throughout the program.

B2	Very clear, but bordering on being too long.	The two environments are definitely distinct. Often, I learn more in my team than in the classroom—because my team is focused and very effective in using their time.	Something about the contribution of team members. When a team member doesn't do their part, it is de-motivating. Also, the "sheet of 5's is something that should be researched. It is ineffective because no one uses it to truly evaluate their team members.	Although bordering on being too long, the survey statements are easy to understand and consider. The section formatting is also helpful.
B3	Clear and easy to follow.	Totally separate.	Questions are relevant and "spot on." Contribution of every team member is relevant to motivation. Also, honest communication. Other comments about teams: Teams can be wonderful/beneficial or dysfunctional. In a good team, members don't only contribute their thoughts, but are interested in helping each other learn. In a bad team, communication is a problem. If you try to address problems, or give bad ratings on the team evaluation, everyone is mad at you.	No.
B4	No. All statements are clear. Good to have the middle option. For some statements, I thought that sometimes the statement was true and sometimes not. In these cases, I chose the middle option.	I recognized that the statements mirrored each other. I didn't have any difficulty separating the two environments when considering my responses.	No suggestions. Very impressed with the survey.	No. Easy to complete, very clear statements, with well-defined sections.
B5	No problem. The survey is clean and "to the point."	A bit, but it did not impede my ability to respond accurately. I had to remind myself which environment—classroom or team meeting—I was considering when responding.	Nothing missing.	Bring pencils or pens—all the same color—so no one feels that their survey can be identified by their writing instrument.

B6	No problem with statements. However, the term "learner" was unusual. Student would be more comfortable.	No problem separating my thoughts about the classroom and team meetings.	Nothing missing.	No improvements.
M1	No. The statements are clear. I had no difficulty or cause to consider meaning.	No. Not at all. The two environments are distinct. Even though the team members are all present in the same classroom, the dynamic is different.	Include a question about team longevity. Team structures are revised throughout the program. When the team structure changes, the team progresses through a period of "gelling." How participants feel about their current team experiences will likely vary depending upon the status of their current team structure.	No. The survey is well-written. The statements, and the survey overall, is clear and easy to complete.
M2	No problem. All statements are clear and direct.	No.	Learning styles are different. Perceptions in both classroom and team-based activities outside of the classroom are likely to differ according to learning preferences.	No. Good survey.
M3	No. All statements are very clear.	No.	No	No.
M4	No.	No. Not at all.	No. When I think about motivation to learn, most important is that material is relevant to my goals. I don't recall a statement about this. Maybe more emphasis on this element.	No. Especially important was the opportunity to answer the last open-ended question.
M5	No.	Not much difference between the two environments for two compounding reasons. First, my team is very tight-knit and second, our team makes up the majority of the cohort now. Many students have left the program.	All areas are good. Can't think of anything that seems lacking in consideration of motivation to learn.	No suggestions, but think the concluding open-ended question is very important to wrap-up perceptions expressed in the Likert statements; also designating the statements by section added to the ease of completion.

Appendix F - Test for Validity: Internal Structure Results

In both the pilot and final studies, the Spearman's Rho technique was used to determine:

1. Positive inter-correlations between subscale means (inclusion, attitude, meaning, competence).

Pilot: Classroom	Inclusion	Attitude	Meaning	Competence
Inclusion	1.000			
Attitude	.399*	1.000		
Meaning	.569**	.598**	1.000	
Competence	.539**	.310	.463**	1.000

*Correlation is significant at the 0.05 level (2-tail)
**Correlation is significant at the 0.01 level (2-tail)

Pilot: Out-of-Classroom	Inclusion	Attitude	Meaning	Competence
Inclusion	1.000			
Attitude	.876**	1.000		
Meaning	.663**	.692**	1.000	
Competence	.837**	.868**	.682**	1.000

*Correlation is significant at the 0.05 level (2-tail)
**Correlation is significant at the 0.01 level (2-tail)

Final: Classroom	Inclusion	Attitude	Meaning	Competence
Inclusion	1.000			
Attitude	.654**	1.000		
Meaning	.650**	.678**	1.000	
Competence	.396**	.528**	.454**	1.000

**Correlation is significant at the 0.01 level (2-tail)

Final: Out-of-Classroom	Inclusion	Attitude	Meaning	Competence
Inclusion	1.000			
Attitude	.738**	1.000		
Meaning	.718**	.783**	1.000	
Competence	.645**	.744**	.763**	1.000

**Correlation is significant at the 0.01 level (2-tail)

2. Negative inter-correlations between aggregate positive and negative scores.

	Positive Statements	Negative Statements	Spearman's Rho (r_s)	
			Pilot	Final
Classroom Scale			-.565**	-.541**
Inclusion	2.1, 2.5, 2.7, 2.12, 2.20, 2.22	2.14, 2.18		
Attitude	2.8, 2.15, 2.23	2.6, 2.21		
Meaning	2.2, 2.9, 2.11, 2.16, 2.19	2.3, 2.17		
Competence	2.4, 2.13	2.10		
Team Learning Scale			-.718**	-.636**
Inclusion	3.1, 3.6, 3.9, 3.20, 3.21, 3.23	3.2, 3.18		
Attitude	3.11, 3.13, 3.17	3.8, 3.22		
Meaning	3.3, 3.4, 3.16, 3.15, 3.7	3.10, 3.14		
Competence	3.5, 3.19	3.12		

**Correlation is significant at the 0.01 level (2-tail)

Appendix G - Administrator's Pre-Survey Script

Today I am asking you to complete a questionnaire that will assist adult educators in understanding motivational conditions experienced in cohort-based accelerated degree programs: both in classroom experiences and in out-of-classroom experiences. You were selected for participation in this study because of your ability to provide valuable insight into those experiences.

Your participation is voluntary, and you may feel completely comfortable in choosing not to participate in whole or in part—by not responding to any survey items that you are not comfortable completing. The survey is relatively brief, and should take less than 20 minutes to complete. Your participation does not require you to identify yourself, so you are assured that individual responses will not be disclosed to anyone or any entity. Only collective data will be reported and discussed in study results.

Results from this questionnaire will be included in my dissertation, and will potentially impact future research and practices beneficial to cohort-based learning. As a dissertation study, there are a few requirements that must be met prior to completing the survey. First, we will review the *Informed Consent Statement* which you can retain. The statement identifies the study's purpose, my advisor, and K-State's institutional review board; and provides contact information for each. Of course, you are welcome to ask questions of me this evening. Next, please complete the *Informed Consent* form stating your decision regarding participation in the study. Note that you will submit your consent form in a separate envelope than your completed surveys. In this way, your identity is separate from your survey responses.

Before beginning the survey, please note that among other components, the survey contains two important scales—one asks about your current classroom environment and the other about your team learning environment. Please note that we are interested in a "snap-shot" of current conditions. Although you have many experiences throughout a program, this survey seeks to understand your perceptions of *current* conditions.

Thank you for taking time to consider your responses carefully. Your responses are very important to this study and will potentially impact the success of future students.

Appendix H - Informed Consent Statement

Project title: Motivational Conditions Experienced by Diverse Learners in Accelerated Degree
                  Programs with Cohort-Based Learning

Principle Researcher: Dr. Sarah Jane Fishback
Co-Investigator: Pamela K. Barnes

You are asked to be part of a study that explores your experiences as an adult learner participating in an accelerated degree program with cohort-based learning. It is the researcher's hope to learn more about your perceptions of conditions supporting your motivation to learn.

This study involves completion of survey instruments administered during randomly selected cohort class sessions occurring during April and May, 2012.

If you choose to participate in this study, you will be asked to complete a survey titled *Motivational Conditions in Learning*. The survey is designed to measure your perceptions of conditions supporting motivation to learn in both your classroom experiences and out-of-classroom team learning experiences. Demographic information is requested for cumulative analysis only. Confidentiality of your responses is guaranteed by the researcher. Any time you feel unable or unwilling to continue, you are free to withdraw your consent and stop participation.

Contact for any problems or questions:
If you have additional questions, please contact me at: Pamela K. Barnes, 828 N. Westlink Avenue, Wichita, KS 67212 or by calling 620-931-4142.

If you prefer, questions about the manner in which this study is conducted may be directed to Dr. Sarah Jane Fishback, Assistant Professor, Kansas State University, Department of Education Leadership, 355 Bluemont Hall, 1100 Mid-Campus Drive, Manhattan, KS 66506 or by calling 785-532-5554.

The Institutional Review Board at Kansas State University approves all research conducted on human subjects. If you have any questions about the manner in which this study is conducted, you may contact Rick Scheidt, Chair, Committee on Research Involving Human Subjects, Kansas State University, 1 Fairchild Hall, Manhattan, KS 66506 or by calling 785-532-3224.

Appendix I - Informed Consent Form

I have read the *Informed Consent Statement* and have been fully advised of the procedures to be used in this study. I understand that this project is research, and that my participation is completely voluntary. I 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, loss of benefits, or academic standing to which I may otherwise be entitled.

Check the selection that applies to your participation in this study:

_____ I agree to participate in this study.

_____ I do not agree to participate in this study.

_____   _____

Signature of Participant   Date

_____

Please print your name.

Appendix J - Qualitative Responses

Subject	Verbatim Responses
4	Learning teams kill motivation for good students. Bad students float through on coattails.
5	With this degree program a condensed program not all group members are considerate of some of the other members' personal lives. Some may be more complex/busier than others and are not able to focus as well as others. Then punishing them for it.
12	The fact that teams interact in different ways—some in person, some online.
13	Almost all team work is split and delegated. Very little is done by the group working on the same thing at once. We divide and conquer! We never meet outside of class. I am still glad to have a learning team for support.
22	My motivation is to get my degree for my son. I can't tell him to stay in school if I don't finish. My learning team is the best!
23	Team members without kids tend to less motivated, according to my experience.
24	Should be broken down by course/instructor.
25	Love school, I look forward to it every week because of the learning real life applications.
26	When you are compatible with a team member, you are motivated to learn and help them. But if you do not like a team member the opposite is true. Matching up groups [during] one of first classes is not good.
27	I have attended classes at a junior college, large college campus, online, and finally found this program. I have completed undergrad at [University] and enjoy this program due to class member loyalty and instructor knowledge.
30	I love my learning team and the concept at [University]. It has allowed me to flourish in college unlike at traditional settings did not allow me to be me.

32 I love my learning team! I think that I am able to learn at a higher level because I have my team members to encourage me. I really think learning teams are important and very happy I have this support.

37 I don't feel the group experience contributed to anything more than workload.

46 Learning in a team environment helps solicit new ideas and discussion.

53 My take on the learning team is they like all things in life only work well when you have the right people in them. Those people are wanting to be in class and school wanting to earn their degree. There are individuals in every class that sneak or squeak by with just doing the bare minimum. Some people in the group won't put up with slacking students. These group members kick those students out. Some teams will allow those students which don't do muck work stay within their groups. So the team learning is amazing for me due to the individuals which make up my group. We operate at a high level. Highly functioning because we don't want to let down our teammates. There are those in every walk of life who would be the opposite.

55 A fun teacher makes learning more fun and enjoyable and less of a stress. Looking forward to class every night makes coming easier. I find a class full of nothing but lecture to be boring and less fun than a class with interactive activities

57 In the classroom, it is vital to my learning and retention experience to have feedback. When the instructors do not return homework in sync with the class schedule, it is very difficult to "get" the objectives of the class. My greatest learning experience in this program has been when we do homework associated with the things we learn in class. The greatest struggle has been learning to work as a team and learn and appreciate each everyone's gifts and talents.

59 Meeting outside of class can be a pain. Often, as a young student, it is hard to find time or motivation to attend group sessions.

67 I really like the learning team process, and feel it helps me stay focused in my journey of education. My learning team is great!

70 The environment is good in the classroom and in the team, the teachers attempt to make sure everyone has input and participates, however, what we are learning seems to be remedial, and lacks challenge. It is more a matter of making a program everyone can pass as opposed to a program that really teaches.

72 I feel that there has been variation in the amount of work required in the classes. Some of the classes have been almost un-doable with an extreme amount of work required. I feel that in some ways the excessive amount of assignments has decreased the amount of actual learning and enjoyment of the course.

75 As this is very general, most of my classes have been wonderful. Two of the eight have been horrible due to bad instruction. My team members are great, one is lazy—there are five of us so we don't worry about the one (he's married to a great person on our team). Overall great experience.

76 Motivation within the team is highly effected by the expectation and dedication of the members.

77 I feel as though the group setting hinders my individual learning. I end up spending a majority of my time completing a large portion of the group work in every class. This takes away from my focus on individual work.

78 I do not like learning teams. I consider adult education a necessary evil.

80 Hinders motivation when there are people who don't contribute an equal share to team projects. Enhances motivation when the instructor has high standards but is also flexible, understanding, and quick to respond to students emails, etc.

81 In team learning, I feel I can learn more by talking closely with others. They can help me out if I do not understand something.

83 I feel learning teams are vital to my education and others. I feel that with group discussion, I learn and comprehend the material more efficiently.

84 The teacher's ability to put students at ease makes for an easier transition to the next course. As for team, when there is one student who does not equally or continuously put for an effort, it really puts a damper on the other team members.

86 I do not appreciate that our grade for each class has been so dependent on the work of our team.

92 I can tell that the camaraderie between our team members has helped me to feel more involved and motivated. I love my team!

93 Sometimes team members have walked away from the team meetings feeling frustrated and no sense of completion on anything. Personalities tend to disagree and not necessarily get along, but it's something that has to be worked through.

94 We have an unusual dynamic. We started with three teams, two were dysfunctional but our team just clicked from the beginning. There was no particular strategy in putting the team together; it was merely based on geography. I have heard horror stories (and witnessed one) about teams. For whatever reason, ours has some magic.

99 I think it is important to recognize how the teams are formed. In this program, the cohort went through a 4-5 week process to understand each individual and how they can contribute to a team. When we chose our teams, we had a good idea of how to form them based on unbiased decisions. I think this has led to stronger teams and a high performing cohort.

100 Current subject matter is a little lower on my interest meter. Hard to be motivated in that regard.

104 The level of interaction and discussion between peers in class has been very good and above my expectations. So far, the program has focused more on presentations and writing skills instead of core concepts of an MBA program and I am disappointed in that. While important, I am not in grad school to learn these skills as they have already been acquired in previous schooling.

110 Large team project, presentations, and papers are too time consuming when the students have a full time job, children, and individual assignments—close to impossible to complete more than one course at a time to speed up the degree program.

115 Team activities are a waste of valuable time.

116 Teams and small groups provide an environment that's "safe" to express differing opinions or question the understanding of particular subject matter, much different than an employment environment.

117 The instructor has a lot to do with the class and team attitude. The team has to grow and sometimes some people have to move for the others to blend.

118 Cut back on presentations. We give presentations at the end of each class.

119 I think more in-class assignments would help with learning. All of the work outside the classroom hinders learning as the instructor is not always easily accessible outside of class. While I can appreciate the limited class time, it causes issues with lecturing. In-class assignments would offer immediate reiteration of course work . The limitation of not having immediate feedback from an instructor allows a student to feel lost very quickly with classes only last a short five weeks.

120 Yes, the team group is great when you have all four team members doing their part such as completing team assignments in a timely manner. But, when you have to carry two individuals on the team class after class, it gets to be intolerable.

122 My experience has been terrible in regards to teams. Students not participating in group, turning work in late, and bad attitudes made my group barely functional.

123 The team learning environment only works if all members are equally motivated and willing to work toward the team goal. My experience with learning teams throughout the five courses I have completed has been positive. Other learning teams in my cohort have not been as lucky, and once they began having problems, the issues seemed to snowball until the eventual collapse of that team.

128 The more feedback instructors give, the better it is for our learning experiences.

131 I think if the students were more equally aligned in ability, the groups would be much more productive.

137 I love my current team. We lost one great member to a job problem, and stay in contact with him. We kicked out two people for not completing work, showing up to team meetings, or meeting overall expectations. One of the reasons I chose to attend [University] is because of the promotion of teams. It seems that the school accommodates bad students for retention, and to collect money from them at the detriment of other graduate students' educational experience. A basic writing sample should be included in the application process.