

Theses and Dissertations

2013

What characterizes and impacts student transformational learning in a community college work placement context

Sharon Schaff

Follow this and additional works at: <https://digitalcommons.pepperdine.edu/etd>

Recommended Citation

Schaff, Sharon, "What characterizes and impacts student transformational learning in a community college work placement context" (2013). *Theses and Dissertations*. 380.
<https://digitalcommons.pepperdine.edu/etd/380>

This Thesis is brought to you for free and open access by Pepperdine Digital Commons. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Pepperdine Digital Commons. For more information, please contact bailey.berry@pepperdine.edu.

**WHAT CHARACTERIZES AND IMPACTS STUDENT TRANSFORMATIONAL
LEARNING IN A COMMUNITY COLLEGE WORK PLACEMENT CONTEXT**

**A Research Project
Presented to the Faculty of
The George L. Graziadio
School of Business and Management
Pepperdine University**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science
in
Organization Development**

**by
Sharon Schaff
August 2013**

This research project, completed by

SHARON SCHAFF

under the guidance of the Faculty Committee and approved by its members, has been submitted to and accepted by the faculty of The George L. Graziadio School of Business and Management in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE
IN ORGANIZATION DEVELOPMENT

Date: August 2013

Faculty Committee

Committee Chair, Ann E. Feyerherm, PhD

Committee Member, Terri Egan, PhD

Linda Livingstone, Ph. D., Dean
The George L. Graziadio School of Business and
Management

Abstract

This study explored the conditions and outcomes of student transformational learning (TL) in a semester-long community college work placement context. Thirty-five interdisciplinary students participated in an appreciative inquiry survey and interview protocol. 31% experienced a high degree of TL, reporting nearly twice the degree of change as low TL students and also exhibiting multiple TL outcomes. They exhibited self-growth, changed frame of reference, confidence, new behaviors and habits, and also described an emergent sense of hope, empowerment, and new possibilities. Positive emotions were the strongest differentiator of high versus low TL. The professional learning context, work culture, and relationships facilitated the greatest impact for high TL. Financial aid was the only personal condition of significance. Leveraging new workplace experiences to catalyze authentic learner capabilities as characterized by TL, offers promising potential for educators and employers alike to build sustainable future capacity. Continued TL research should explore positive, holistic methodologies.

Acknowledgments

Thank you to each of the students who participated in this research study and generously shared their personal stories and experiences with me. It is the hope of all true educators at heart to participate in some type of meaningful impact on the students that cross our paths. May your persistence and dreams grow as you continue along your individual destinies. May you always embrace the best of your transformative potential.

Thank you to the employer partners who saw the possibility of a new type of work placement experience for community college students. May our educational institutions and workplaces of tomorrow determine to build together for a better future.

A special thanks goes out to my thesis advisor, Dr. Ann Feyerherm, for guiding me through this process and her unconditional support. Your patience and ability to see into the heart of an issue is appreciated and provoking. You are part of what makes MSOD amazing. Ditto to my inspiring Xi Prime classmates along this journey.

To my brother David, thanks for lending your scientific brain to my statistical inquiries. Who knew that Ph.D. would help defend against earth-quakings of another nature? You've been the best brother I could ask for in this process, your encouragement and wisdom priceless. To my sisters, Ramy, Raquel, and Ana— please know I so appreciate you.

Finally, to my God through whom all things are possible, thank you for the gifts of discovery, learning, hope, possibilities, friendships, creativity, and new life. Strong foundations and transforming power are endowed in You. Thank you for teaching me in this endeavor and trusting me with treasures in earthen vessels. Help us seed a better future. Thank you, Faithful and True, for your abundant blessings.

Table of Contents

Abstract.....	iii
Acknowledgments.....	iv
List of Tables	ix
List of Figures.....	xi
1. Introduction.....	1
Purpose and Objectives.....	6
Study Setting.....	7
Significance and Application.....	8
Study Outline	10
2. Literature Review.....	11
Transformational Learning	11
Why Transformational Learning?.....	13
Foundational Theoretical Frameworks of Transformational Learning.....	14
Transformational learning as emancipatory.....	15
Transformational learning as perspective transformation.....	15
Transformational learning as developmental.....	20
Transformational learning as spiritual-integrative.....	23
Evolution of Transformational Learning Theory.....	27
New research areas	28
New sciences.....	28
Transformational Learning in Organizational Development.....	31
Transformational Learning in the Workplace.....	33

Outcomes of Transformational Learning.....	34
Facilitators of Transformational Learning.....	37
Role of context.....	37
Relationships.....	38
Power.....	39
Summary, Issues, and Challenges.....	40
3. Methods.....	43
Research Paradigm and Design.....	43
Participants.....	47
Data Collection, Confidentiality, and Consent.....	48
Data Analysis.....	50
Summary.....	51
4. Results.....	53
Characterization of Transformational Learning.....	53
Comparative Outcomes for High and Low Transformational Learning.....	54
Comparative strength of transformational learning outcomes.....	55
Comparative scope of transformational learning outcomes.....	56
Comparative Facilitators of High and Low Transformational Learning.....	58
Role of emotions.....	58
Learning context.....	59
Emotions and learning context.....	63
Synthesis of Comparisons.....	64
High Transformational Learning Characterization.....	66

Significant High Transformational Learning Outcomes.....	69
Self-growth	71
Frame of reference	71
Empowerment.....	72
Cultural awareness	75
New possibilities.....	77
New identity.....	79
Significant High Transformational Learning Facilitators.....	80
Challenge	80
Recognition.....	81
Teamwork	82
Corporate assets	84
Barriers.....	86
Sources of support.....	86
Synthesis of High Transformational Learning Outcomes	88
Conditions that Impact Transformational Learning.....	90
Impact of personal variables	91
Impact of learning, worksite, and program support.....	93
Learning experience variables	97
Worksite factor variables	99
Program support variables	100
Summary.....	102
5. Discussion.....	106

Conclusions.....	106
Participant transformational learning outcomes	107
Personal, program, and worksite conditions	111
Implications and Recommendations	112
Transformational learning research	112
Program design	114
Organization development in the workplace	116
Community colleges and workforce development	117
Limitations	118
Future Research	120
References.....	123
Appendix A: Student Survey Instrument.....	132
Appendix B: Invitation to Interview.....	134
Appendix C: Research Consent Form.....	135
Appendix D: Interview Protocol.....	137

List of Tables

Table	Page
1. Summary of Foundational Transformational Learning Frameworks	26
2. A Priori Outcomes to Survey Transformational Learning.....	44
3. Characterization of High and Low Transformational Learning	54
4. Comparative Frequency and Scope of A Priori Transformational Learning Outcomes	57
5. Comparative Emotional Influence on A Priori Transformational Learning Outcomes	59
6. Comparative Learning Context Themes	61
7. Comparative Emotional Influence on Learning Context Themes	64
8. Synthesis of High and Low Transformational Learning Comparisons	66
9. Themes and Transformational Learning Outcomes for High Transformational Learning Students	68
10. Frequency of Top Associated Transformational Learning Outcomes in High Transformational Learning Students.....	70
11. Analysis of Variance for Personal Variables	93
12. Correlational Analysis of Learning, Worksite, and College Support	94
13. Correlational Analysis of Broad Program Components by Degree of Transformational Learning	95
14. Comparative Means of Broad Program Components by Degree of Transformational Learning	97

Table	Page
15. Strength of Learning Experience Variables	98
16. Strength of Worksite Factor Variables	100
17. Strength of College Program Support Variables	101
18. Summary of Transformational Learning Frameworks and Dominant Transformational Learning Outcomes	108

List of Figures

Figure	Page
Figure 1: Pathways of Influence for High Transformational Learning Outcomes	89
Figure 2: Scatterplot Means of Learning, Worksite, and Program Support by Degree of Transformational Learning	95
Figure 3: Distribution of Transformational Learning and Broad Program Component Means by Degree of Transformational Learning	96

Chapter 1

Introduction

Community college enrollments are booming and increasingly taking center stage in local and national politics for their role in workforce development. In the growing competitive global economy, America's future is said to rest upon the education and abilities of its workforce. Since 2009, President Obama has announced several initiatives such as the first ever Community College White House Summit, the Community College to Career Fund, the Trade Adjustment Community College and Career Training grants, Skills for America's Future, and the American Graduation Initiative. Budgetary proposals of \$500 million to \$10 billion are attached to these initiatives, with visionary goals for every American to obtain at least one year of postsecondary education, add an additional 5 million community college degrees and certificates by 2020 to give the U.S. the highest proportion of college graduates in the world, and to foster business partnerships to ensure these credentials will actually help graduates get ahead in their careers (Biden, 2012; Lewin, 2012; U.S. Department of Labor, 2012).

Internships and cooperative education work placements are a recognized critical channel for the workforce development pipeline, and are valued strongly across employers, students, and educational practitioners. National surveys of employers cite a strong preference for recruiting students with applied learning experiences such as internships or co-ops, over students who have not had these types of experiences (National Association of Colleges and Employers, 2010). One reason that internship and cooperative education programs have become a preferred talent recruitment method is because they afford an employer extensive insight over time into a potential new hire. This comes with the advantages of relatively low investment costs and early access to the

talent pool. Another reason is the growing value of problem-solving and soft skills in the workplace. One urban study on workforce skills for the 21st century indicates that even in technical professions such as IT, employers are overwhelmingly looking for a demonstration of higher commodity soft skills such as teamwork, communication, and creative decision-making above the hard skills often learned in the classroom. These employers agree that they would strongly prefer internship or co-op portfolios over GPA scores or capstone projects as indicators of success in hiring potential graduates (The Saflund Institute, 2007).

The intrinsic value of practical applied learning experiences is also well-established among students and educational practitioners. Student graduates of community colleges often identify applied learning experiences such as clinical rotations, co-op and internship programs, or even hands-on skills practice opportunities in classroom labs to be the most beneficial and significant parts of their overall learning (Torraco, 2008). The American Association of Colleges and Universities has listed internship and co-op programs as a targeted category of ten “High-Impact Educational Practices” identified in a 2008 report through the Liberal Education and America’s Promise initiative. These practices have been “widely tested” and have been shown to be beneficial for college students from many backgrounds (Kuh, 2008).

Cooperative education work placements and internships are grounded in experiential education theory. Educational theorists have long supported the teaching excellence of such active learning strategies. Founding fathers of experiential education, John Dewey and Paulo Freire, in the 1930s began advocating for new educational models that would not see students as passive learning receptacles waiting to be filled like “empty bank accounts,” but rather individuals who could add their unique histories of life

experiences to personalize and take ownership of their own learning (Morton, 1997, p. 4). David Kolb built upon these ideas of student-centered, holistic learning strategies, and today, Kolb's Action Learning Cycle of asking, “What? So what? and Now what?” has become widely known in experiential education and training circles, where the learner is empowered to decide for himself or herself what the valid learning points are and what is next acted upon (Morton, 1997).

Experiential learning theory has more recently received a boost from modern neuroscience research, which has documented the physiology of how new learning connects to existing neural superhighway patterns of thinking (Siegel, 2009). Prior experience impacts the response to new experiences. “Testing ideas in action—Experiential Education—is among the most powerful means available for connecting new learning to existing neurological networks” (Morton, 1997, p. 5). This confirms the importance of reflecting on learning experiences in context of mindsets and beliefs. Individual experiential learning development is also complemented by ‘situated learning’ in a workplace community of practice as ‘newcomers’ learn to absorb from and into the communication, shared knowledge, and culture of that community of practice (Lave & Wenger, 1991). Today, internship, co-op, and practicum programs are recognized as respected models of education and an integral part of the curriculum design for learning, particularly at the community college level (Kuh, 2008).

Very little however, has actually changed in practitioner models of cooperative education in the last twenty years. An influx of federal school-to-work program funding in the early 1970s resulted in much research devoted to the practical evaluation and application of programs to produce desired outcomes (Wilson, 1989). Broad variables for success have been identified that pertain to the role of a program manager, faculty

advisor, student or employer co-op manager, or institutional partnership development. Performance-enhancing factors could include the design of the work environment, supervisory capabilities of the manager, guidance from coworkers, previous work experience of the student, or more subjective student variables such as motivation, initiative or communication skills (Torraco, 2008). While the extensive research on best practices remains valid, the world of work has certainly changed dramatically.

Graduates entering today's workforce will be swept along the rising swells of rapid technological innovation, globalization, and socio-economic unpredictability. The traditional views of a 'job for life' or even a clearly defined 'entry level graduate job' disappeared a while ago (Harvey, Moon, Geall, & Bower, 1997). Workers need more adaptable skillsets and frameworks of understanding to meet the new challenges of today's more dynamic workplaces, with leadership at its core (Brock, 2010). Many organizations have undergone significant transformation in recent years and management theory is evolving to develop structures and processes that can better embrace change as 'flexible organizations' with self-organizing units, decentralized network structures, and social innovation projects (Karakas, 2011). Transformational organizations are also sometimes equated with 'learning organizations' (Senge, 1990). *Transformational* has increasingly become a buzzword in our modern society, associated with the study of transformational leadership, change, psychology, spirituality, or personal lifestyle changes.

In the last 40 years, transformational learning (TL) has become the most researched subject in the field of adult education (Brown, 2006; E. Taylor, 2007). While TL shares roots with experiential learning theory, it offers new insights for not just the content and process of how we learn, but also the underlying premise of why we learn

(Mezirow, 2000; Kitchenham, 2008). “There is an instinctive drive among all humans to make meaning of their daily lives” (E. Taylor, 2007, p. 5). TL is defined as a shift of consciousness that dramatically and permanently alters our way of being in the world (Transformative Learning Centre, 2012). TL goes beyond simply good learning or incremental learning, and describes a deeper paradigm shift that can occur as adult learners reexamine their frame of reference or integrate new meaning from their experiences (Mezirow, 2000). TL has been shown to be an effective component of successful education models (Brown, 2006; Hanson, 2010; King, 2004) and a desirable leadership competency for the workplace (Gray, 2006).

TL represents a significant area of research for cooperative work placement programs to cross-link study of workforce needs with emergent models of sound educational learning and development. There is also a push by federal and state government initiatives to target a more strategic integration of education and workforce development initiatives, with some popular debate over whether the emphasis should be on jobs vs. traditional education. On the one hand, the American higher education system has been critiqued for pursuing cultural capital rather than developing human capital, “Higher education that fails to develop learners beyond the acquisition of instrumental knowledge [skills acquisition] contributes to the poverty of American society. Individuals must be able to think and act dynamically—rather than linearly—in postmodern society” (Glisczinski, 2007, p. 319). On the other hand, higher education has seen 300% tuition increases on average since 1980, yet can't promise that the market for the educated will see new domestic job growth or social mobility, or necessarily compete against the rising supply of foreign-educated workers in a flattening global economy (Snyder, 2006). The study of TL can serve both interests.

A better understanding of TL at the individual or small system level can help scale our understanding to larger systems of our business and educational environments. Our community colleges in particular have become a melting pot of all ages in many walks of life, where it is no longer simple to divide the purpose of education into traditional academic and vocational models. What is common to cultivating good learning and to producing a skilled workforce? What can we leverage to make our cities and our organizations more thriving communities of growth and success? Community colleges and cooperative work placement programs are thriving incubators to explore these questions, with TL as a focal point for the potential to meaningfully transform individuals and communities.

Purpose and Objectives

The purpose of this study is to explore the conditions and outcomes of student TL in a semester-long community college work placement context. An appreciative inquiry into what constitutes the most meaningful learning for students is combined with an examination of what factors serve as significant enablers or barriers to impact student TL.

The research questions were:

1. What outcomes characterize student TL in a community college work placement context? (What is their prevalence and context?)
2. What personal, program, or worksite conditions tend to impact student TL? (What program components have the most strength in predicting outcomes of TL? Is there any meaningful variation by student demographics, majors, or industries?)

In generalizing to overall strategic planning, this study attempts to explore the following considerations: What can educational practitioners and workplace professionals do to create and sustain a high level of TL in their program designs? How does the context of TL align with the broad objectives of both educators and employer partners?

Study Setting

A credit-bearing work placement pilot program at an urban, multi-campus institution in the northeastern United States provided the research context for this study. A partnership of regional employers had been formed with the support of local business and government leaders a few years earlier to explore how all entities could work more closely with the education sector to spur job development and economic growth for the state. Employers in the coalition included representatives of the financial services, retail, defense, technology, and construction industries. The pilot internship program in this research study was birthed as a new workforce development model targeted for the community colleges. The collective belief was that a substantial workforce skills gap existed that could be better addressed by the local community colleges. These leaders also believed that community college students were more likely to stay and remain part of the local workforce upon graduation.

Two main objectives were identified for the pilot program: to provide community college students a quality work immersion and professional learning experience in a corporate environment, and to generally contribute to the workforce development needs for the state. This was not another grant-funded government initiative. Rather, the business leaders directly took responsibility to contribute and invest in the development and funding of this program.

The pilot internship model was developed to specifically accommodate several aspects of the community college non-traditional student population. To promote accessibility and affordability, each company agreed to pay the interns a competitive rate of \$15 per hour. Work placements ranged from 2-3 days per week, leaving room for the students to take classes and maintain necessary prior employment work schedules and

personal responsibilities. Charitable contributions were also provided in the form of transportation stipends to cover commuting costs, which could sometimes cost more than the standard fees and tuition for a traditional three-credit course. To promote corporate exposure and learning, the board of employer partners also agreed to assign an age-appropriate mentor to each student and provide assurance of common training. Common learning sessions included such topics as corporate overviews, facility tours, ethics training, six sigma, finance 101, and career development. The employers were heavily invested in making this a quality learning experience and providing real-world project assignments to the interns.

The students were also highly invested in the program, selected through a competitive application program with interviews conducted by first the college, and then the employers. A diverse population was represented with majors across business, information technology, engineering, paralegal, and media communications. Students earned three academic credits towards their major and were enrolled in a graded, interdisciplinary internship course during the semester of their work placement. The age range of students was 19 to 47 years of age.

Significance and Application

The pilot workforce development program in this study is an example of high stakeholder investment. All parties involved, the employers, the students, the college, and local government leaders, were highly invested in making the program successful. While the model has incorporated many significant best practices from cooperative education and success factors tailored to the non-traditional student, it will take deeper understanding to make this a true “model of success” that can be sustainable or scalable statewide. At the core of the program’s success is the student experience. The students

today are the workers of the future. Lifelong learning skills are not simply a visionary goal of education, but a needed competency for workers of the future.

Standard evaluations of student performance on the cooperative education worksite were geared to identify achievement and areas for improvement between the midterm and endpoint of the internship experience. Such outcomes-based education measurements however are univariate and only assess for levels of performance to a certain standard (Ebrahim, 2005). They can miss entirely the question of why or how learning occurred, or may occur in the future. This is particularly true in a work placement context where learning is by nature dependent on many variables, as well as the subjective experience of the student intern.

An evaluation of TL can explore the factors, forms, and processes of significant learning experiences. This has become increasingly poignant for both educators and the workplace. The boundaries of education now encompass individual growth, skills and knowledge acquisition, a variety of modes of thinking, specialized professional development, global citizenship, and a foundation for lifelong learning (Kuh, 2008). To explore the core success of the student experience, this study developed an appreciative inquiry interview protocol and survey to measure comparative outcomes and conditions of student TL. This included the degree of change, the number of characteristic indicators involved, and the supporting contexts in which TL occurred. TL begins with the individual and is applicable to the organization; it can include both individual and collective social transformation. A new pedagogical framework of TL in higher education would contrast with the traditional transmission paradigm of teacher roles, classroom management and assessment (De La Salle General Education Committee, 2004). The field presents broad and interesting possibilities for the future.

Study Outline

The purpose of this introduction was to demonstrate the unique value in exploring the conditions and outcomes of TL in a community college work placement context. Chapter 2 reviews existing research and relevant literature on TL theory in adult learning and organizational contexts. Chapter 3 outlines the research methods and design specifics, such as participant selection, qualitative interviews, surveys, and data analysis procedures. In the final two chapters, implications for educational practitioners and workplace professionals are discussed, including an understanding of the prevalence and context of TL among community college students and an examination of factors that serve as significant enablers or barriers.

Chapter 2

Literature Review

The purpose of this study is to explore the conditions and outcomes of student TL in a semester-long community college work placement context. An appreciative inquiry into what constitutes the most meaningful learning for students was combined with an examination of what factors serve as significant enablers or barriers to impact student TL.

Socrates said, “The unexamined life is not worth living” (“Socrates,” 2013, para. 54). Paul the Apostle admonished, "Be transformed by the renewing of your mind" (Romans 12:2 KJV). This chapter reviews literature related to the theories of TL, including adult learning and organizational contexts, research trends, and facilitators and outcomes of TL. Theories and research from the fields of education, psychology, and organizational development are discussed.

Transformational Learning

TL has been studied for close to forty years, and has become the most popular and researched topic in the field of adult education (Brookfield, 2000; E. Taylor, 2007). Much of this research is under the title of ‘transformative learning’ although it is also more broadly referred to today in its themes and variations as ‘transformational learning’ (Tisdell, 2012). TL is simply defined as “a deep, structural shift in basic premises of thought, feelings, and actions... Transformative learning makes us understand the world in a different way, changing the way we experience it and the way we act in our day-to-day lives” (Transformative Learning Centre, 2012, para. 13).

Transformational has increasingly become a buzz word in our modern society, associated with disciplines of transformational leadership, organizational learning, change, psychology, spirituality, or more personal reflections on a volunteer experience,

travel abroad, or a new diet/ fitness routine. Some researchers have argued that the term's popularity has watered down its true meaning by its indiscriminate overuse (Brookfield, 2000). Newman (2012) argues on the other end of the spectrum that all the buzz of TL is rather simply, "good learning and good educational practice" (p. 38).

TL theory is beginning to evolve into maturity as a field. In a comparison of two seminal literature reviews by E. Taylor in 1998 and 2007, the review of the first twenty years was grounded mostly in unpublished research dissertations and conference proceedings, whereas the more recent decade included forty empirical studies in peer-reviewed research publications. Of significance, both an annual national conference and an international academic conference, as well as a dedicated peer-reviewed academic journal have arisen from the cumulative research in this field.

The First National Conference on Transformational Learning International Conference was held in 1998 (Weissner & Mezirow, 2000) and the International Conference on Transformative learning recently celebrated its 10th anniversary in 2012. The *Journal for Transformative Education* has been in print since 2003, covering broad topics in adult education and lifelong learning; change, transition, and transformation; management and corporate education; educational and humanistic psychology; experiential education; holistic education; organizational development, learning, and psychology; and social change. Its founding editors proudly inaugurated it with the inscription of, "No, not yet another journal on education. JTE [*Journal for Transformative Education*] is the journal of another education" (as cited by Newman, 2012, p. 41).

Why Transformational Learning?

Why has TL drawn such interest, and across so many fields? There is something universally valued in the wonder of seeing with new eyes: "I come to the same place and see it again for the first time" (T.S. Eliot, as cited by Pugh, 2011, p. 108).

First, it is part philosophy. "Life is about having rich, meaningful experiences and expanding our future capacity for rich, meaningful experience," cited as a holistic goal of individuals, nations, and societies seeking well-being (Pugh, 2011, p. 108).

Transformative experiences are peak experiences as well as iterative processes which enrich and expand everyday experiences.

Second, it is impactful. One form literally transforms to another form permanently. "Highly developed adults, those who have built capacity for their constructed meaning systems to transform, are likely to be less reactive and more deliberative and competent in carrying out the work of society while adapting to changing circumstances" (K. Taylor, 2000).

"Deep change is different from incremental change in that it requires new ways of thinking and behaving... Making a deep change requires walking naked into the land of uncertainty" (Quinn, as cited by O'Hara, 2003, p. 68). It creates room for new possibilities.

Third, it is part methodology, which as it is better understood can be more practical and scalable across the building blocks of society. It is a goal of organization development to build capacity in humans and systems, and indeed much work suggests that organization development initiatives to transform organizations cannot happen in a vacuum, without the interrelatedness of transforming individuals (O'Hara, 2003; Scott, 2003; Scribner & Donaldson, 2001). It has huge developmental and cultural implications.

Fourth, the environment is primed. The world as we know it is changing more swiftly and more multi-dimensionally than ever before in history. How can human beings also escape transformation? "If we are to succeed in building a sustainable global civil society, we will require forms of consciousness, habits of mind, combinations of mental capacities, attitudes, and values that so far are very rare" (O'Hara, 2003, p. 65).

Foundational Theoretical Frameworks of Transformational Learning

Over the years, TL has been viewed through various conceptual lenses, or theoretical frameworks, which overlap in sharing three main historical and philosophical foundations regarding learning-- critical social theory, constructivism, and humanism. Critical social theory explores learning in context of the dominant socio-cultural ideologies that become assimilated, and historically adopts a strong critique perspective. Constructivism explores learning as subject to individual interpretation and construction of meaning. Humanism values learning in terms of human potential, individually defined realities and self-actualizing growth (Cranton & Taylor, 2012). These collective assumptions provide an important value base for understanding what makes learning transformational.

Dirkx's 1998 four-lens approach best summarizes the foundational body of research for TL and understanding its core tenets (as cited in Baumgartner, 2001). Dirkx identified these four lenses in the research literature as: (a) emancipatory; (b) perspective change, including habits, assumptions, and point of view; (c) developmental; and (d) spiritual-integrative. More recently, additional themes of TL have been articulated (E. Taylor, 2007; E. Taylor & Snyder, 2012). Most recently in the last 7 years, current researchers are calling to unify existing paradigms of TL theory to a more integrally

formed theory (Cranton & Taylor, 2012; Gunnlaugson, 2005, 2008; E. Taylor & Snyder, 2012). This chapter will proceed to trace development of TL theory from its roots.

Transformational learning as emancipatory. TL's first evolution is traced to Paulo Freire's *Pedagogy of the Oppressed*, where emancipatory education is proposed as freedom in the form of the student as an active participant in designing his learning (Baumgartner, 2001; Cranton & Taylor, 2012). Freire argued that learning takes place in the crucible of life, which is not a controlled environment. No student is an empty bank account waiting to passively store and deposit information from his or her teacher. There is a natural flow of learning from one experience to the next, "coming to see the world not as a static reality but as a reality in process, in transformation" (Morton, 1997, p. 4). Emancipatory transformation comes in the form of empowerment and consciousness-raising, which transforms the student learner to then act in their world in different ways (Baumgartner, 2001).

Transformational learning as perspective transformation. Perspective transformation, also known as the cognitive-rational approach, is the longest running and most widely researched theoretical framework of TL. Jack Mezirow popularized TL in the late 1970s to become the new andragogy, which replaced Malcolm Knowles well-known instructional designs for educating adult learners (Cranton & Taylor, 2012). How we make meaning as adults is a learning process, based on our personal awareness and context. When new learning causes a paradigm shift in our point of view, assumptions, and sense of meaning and relating to the world, we have experienced a transformation. The cognitive-rational approach maintains that TL cannot occur outside the rational process of learning within awareness. The proposition that not all learning is purely

rational or conscious has been a major critique levied against this theory over the years (Dirkx, Mezirow, & Cranton, 2006).

Mezirow's landmark 1975 grounded theory study investigated 12 national re-entry college programs for women pursuing education or employment after a significant break, followed up by a survey of over 800 colleges across the country. He explored in depth various facilitators and barriers to their learning involved in the re-entry process. As a result, Mezirow (as cited in Kitchenham, 2008) concluded that these women had undergone a personal transformation, and outlined 10 phases of this TL process:

1. Phase 1: A disorienting dilemma.
2. Phase 2: A self-examination with feelings of guilt or shame.
3. Phase 3: A critical assessment of epistemic, sociocultural, or psychic assumptions.
4. Phase 4: Recognition that one's discontent and the process of transformation are shared and that others have negotiated a similar change.
5. Phase 5: Exploration of options for new roles, relationships, and actions.
6. Phase 6: Planning of a course of action.
7. Phase 7: Acquisition of knowledge and skills for implementing one's plans.
8. Phase 8: Provisional trying of new roles.
9. Phase 9: Building of competence and self-confidence in new roles and relationships.
10. Phase 10: An integration into one's life on the basis of conditions dictated by one's perspective.

Three key premises emerge from Mezirow's 10 phases of perspective transformation, a 'disorienting dilemma,' critical reflection, and experimentation. The latter two resemble experiential education theorist Kolb's simpler Action Learning Cycle

in its emphasis upon critical self-reflection and experimentation. However, Mezirow assumes a disorienting dilemma is required to catalyze critical self-reflection. He explains

A defining condition of being human is our urgent need to understand and order the meaning of our experience, to integrate it with what we know to avoid the threat of chaos. If we are unable to understand, we often turn to tradition, thoughtlessly seize explanations by authority figures, or resort to various psychological mechanisms, such as projection and rationalization, to create imaginary meanings. (Mezirow, 2000, p. 3)

Although substantial research has confirmed that a disorienting dilemma may be present in TL, newer theories explore different catalysts or adopt different approaches (Cranton, Dirkx, Gozawa, Kasl, & Smith, 2006; Dirkx et al., 2006; E. Taylor, 2007).

In more than 20 publications since 1978, Mezirow has developed and morphed his theory, in part response to his critics and in part incorporating new influences. Significant among these influences was first adapting Habermas's (1971) three domains of learning to meaning schemes and meaning perspectives (Mezirow, 1985), next identifying three types of reflection and added an 11th stage of altering relationships (Mezirow, 1991), then defining habits of mind and points of view, and acknowledging affective and social dimensions (Mezirow, 2000), and finally conceding in a debate with Dirkx at the 6th International Transformative Learning Conference that alternate points of view on the theory itself could co-exist (Dirkx et al., 2006; Kitchenham, 2008).

A fourth key premise of perspective transformation is that it is not stand-alone, but results in new actions or behaviors. Habermas (1971) articulated three domains of learning as the instrumental, the communicative, and the emancipatory. Instrumental learning involves technical tasks, communicative learning involves real-world context such as social norms and practical communication, and emancipatory learning frees the learner from previous perspectives and self-knowledge. Mezirow came to equate TL with

the process of emancipatory learning, whether in the instrumental or communicative domains (Weissner & Mezirow, 2000). “The emancipatory process of becoming critically aware of how and why the structure of psycho-cultural assumptions has come to constrain the way we see ourselves and our relationships, [TL causes] reconstituting this structure to permit a more inclusive and discriminating integration of experience and acting upon these new understandings” (Mezirow, as cited in Kitchenham, 2008, p. 109).

Perspective transformation recognizes learning through a ‘frame of reference.’ ‘A frame of reference, originally termed a ‘meaning perspective’ by Mezirow, is “the structure of assumptions and expectations through which we filter and sense impressions” (Mezirow, 2000, p. 16). TL occurs through the cognitive process of subjective or objective reframing, or through a critical reflection on assumptions. The building blocks of a frame of reference are ‘habits of mind’ and ‘points of view.’ Habits of mind are defined as assumptions in the form of sociolinguistic, moral, epistemic, philosophical, psychological, or aesthetic. A point of view is the expression of these habits of mind, and becomes expressed through tacit judgments, feelings, and attitudes that often operate outside awareness. These tacit individual interpretations, expectations, or categorizations of cause and effect were originally termed as ‘meaning schemes’ but later recast into more familiar language as elements that make up a point of view. Four different ways of perspective transformation are recognized by a) elaborating existing frames of reference; b) learning new frames of reference; c) transforming points of view; or d) transforming habits of mind (Weissner & Mezirow, 2000).

While critical reflection is a key element of Mezirow’s theories, there is some debate in the field over the defined relationships of TL to critical reflection. Reflection which produces merely a “more informed, nuanced, sophisticated or deeper

understanding of something" is seen by some as incremental learning (Brookfield, 2000, p. 139). Incremental learning is a primary and crucial role of educators, but does not describe the same essence as TL. Mezirow differentiated three types of critical reflection, content, process and premise reflection, which overlap somewhat to Habermas' learning domains (Kreber, 2012). Content reflection is on the experience itself, process reflection involves thinking about how to practically handle or communicate the experience, and premise reflection focuses on deeper questions of why. The latter includes examining long-held views such as beliefs, assumptions, values, or the social construct (Mezirow, 2000). In Mezirow's terms, "Transformation in habit of mind may be epochal, a sudden dramatic, reorienting insight, or incremental, involving a progressive series of transformations in related points of view that culminate in a transformation in habit of mind" (p. 21). The value placed universally on the word 'transformative' is indicative of a fundamental shift in the learner's paradigm, whether by epiphany or in incremental stages (Brookfield, 2000).

Perspective transformation has been the predominant domain of research in the field of TL, and study of outcomes has almost exclusively based on the work of Mezirow (Cranton et al., 2006; E. Taylor, 2007). Mezirow's focus on changed habits of mind and perspectives has been replicated and verified in the large body of research on TL (Cranton & Taylor, 2012; E. Taylor & Snyder, 2012; Weissner & Mezirow, 2000). A few researchers have also highlighted the important role of experience to perspective change, in a more purist experiential education vein of Dewey, which emphasizes that whatever makes an experience 'meaningful' is the focal point where perspective transformation can be leveraged (MacKeracher, 2012; Pugh, 2011).

In sum, perspective transformation defines meaning as constructed by the individual learner based on their perception and experiences, and through a rational process of critical self-reflection. By definition, mindsets or worldviews are transformed from one perspective to a new, irreversible perspective which will result in new behaviors (Dirkx et al., 2006; E. Taylor, 2007).

Transformational learning as developmental. Developmental theories are also known as the constructive-developmental or psycho-developmental approach. They explore how learners integrate new knowledge into practical applications for their lives as they grow into adulthood. Young adults process things differently than adults in midlife because they are at different stages of developmental maturity. “Development means successively asking broader and deeper questions of the relationship between oneself and the world” (Daloz, as cited in K. Taylor & Elias, 2012, p.148).

In the constructive-developmental approach, perspective transformation becomes a parallel process where, as part of the continual process of maturity, adult learners actively question and renegotiate various frames of reference, such as their sense of self-identity, responsibility, roles in society, and values. This 'evolving, growing self' is building capacity to "engage with the world of ideas and learn from experience; who can, examine and challenge assumptions; who can, through self-reflection, arrive at thoughtfully considered commitments; and who relates to others from a place of mutual enhancement rather than need [of an adolescent]" (K. Taylor, 2000, p. 159).

The central premise of the developmental approach asks, “what form [frame of reference] transforms?” and combines cognitive, intrapersonal, and interpersonal frames of reference (Kegan, 2000, p. 52). Kegan’s 1994 *Transformations of Consciousness*

model of social maturity provides the seminal foundation for developmental theories.

Kegan translates Mezirow's frame of reference to a way of knowing, or an epistemology.

Kegan (2000) identifies five increasingly complex broad epistemologies along the conscious developmental process of growing into an adult. Youth and adolescence encompass the first two stages where impulses and needs predominate. Although a significant amount of developmental change occurs in these first two stages, TL has not generally been studied until the third stage, when cognitive maturity has reached a necessary threshold to reframe subject and object.

The third order of consciousness presents the hallmark transition into psychological adulthood through self-consciousness and socialization, which occurs "when one can make object—and therefore be aware and in charge of—the personal wants and needs to which one was formerly subject" (K. Taylor & Elias, 2012, p. 152). In this stage one becomes socialized to the rules of society, and boundaries are often delineated into "us" and "them." Third-order epistemologies are made up of the values and expectations of our individual surroundings. We often understood them in terms of taking responsibility, or in terms of what we cannot do.

The fourth order moves consciousness beyond socializing to a self-authoring state, where the epistemology shifts from being "written by" the socializing press to "writing upon it" and ordering experience by what we can do (Kegan, 2000, p. 59). The fifth order of consciousness (self-transforming) is less common, and defined by transcendent ideological perspectives and holding dialectical paradoxes. Gandhi, Martin Luther King, and Nelson Mandela are examples of leaders who have transcended to "see beyond such apparently clear [self-authored] delineations" of race, religion, and power (K. Taylor & Elias, 2012, p. 158).

A key distinction of developmental theorists is the emphasis on the significant emotional and psychological dimensions of personal transformation. These can represent benefits or risks to the transformation process. TL reported merely by cognitive capacity has revealed significant gaps in the participant's developmental identity (Kegan, 2000). Convincing doctoral dissertations on transforming racial understanding have been written, yet with no reported change in personal convictions or applicability (Scott, 2003). Every learner comes with their own personal history of development, and therefore also their own personal habits and perspectives. The individual's epistemology or way of constructing and reconstructing meaning becomes more relevant to the process of transformation than mere cognitive awareness. TL is not a transformational process unless it also impacts the developmental hard-wiring of one's view on the world.

Critical self-reflection is a shared premise of both perspective transformation and developmental theories. Here, researchers emphasize a dialogic process of critical self-reflection, through which learners can become aware of how and why they personally construct knowledge. Change in behavioral repertoire alone is not sufficient (E. Taylor, 2008). In an extensive review of adult learning and development in consultation with international educators, K. Taylor, Marienau, and Fiddler (2000) identified five key dimensions of this dialogic process:

1. 1st dimension: Toward knowing as a dialogical process. Learners become aware of assumptions behind their knowledge, explore reframing to surface new meanings, and reflect on truth via different contexts of scenarios or relationships.
2. 2nd dimension: Toward a dialogical relationship to oneself. Learners explore factors such as fear, safety of the familiar, or meaningful purpose of life as they understand more about why they are who they are and how they make choices.

3. 3rd dimension: Toward being a continuous learner. They reflect on their approach to learning such as taking risks, pursuing curiosity, wrestling with dissonance, or soliciting advice, and realize they have responsibility for their own learning goals and actions.
4. 4th dimension: Toward self-agency and self-authorship. Learners construct a personal value and belief system that guides their behavior and actions.
5. 5th dimension: Toward connection with others. Learners mediate their integrity as an individual with engaging more fully into relationships and the collective community.

A final key premise of the developmental approach is the integral component of relationships, since most psychological developmental models trace the development of self-maturity in relation to others and the larger community. “Nobody does it alone.” (K. Taylor & Elias, 2012, p. 159) Transforming assumptions, beliefs, values, and ways of making meaning does not happen in a vacuum, but always in context of redefining oneself in relation to the world. Tennant (2005) has further explored these aspects of identity development in terms of various self-conceptualizations in relation to societal inputs, such as the authentic self, the repressed self, the autonomous self, the storied self, and the entangled self.

Transformational learning as spiritual-integrative. The spiritual-integrative lens of TL admonishes that transformation is an extra-rational process that involves integration of various aspects of the self, including the spirit and the soul. An overemphasis on cognitive-rational approaches may succeed in capturing the branches or visible surface structures of the human psyche, and yet deny its very roots. And while the developmental approach explores the psychological and emotional aspects of TL, it doesn't necessarily fully integrate the murkier, hidden self. Theories of depth psychology and spirituality weave together the spiritual-integrative framework of TL to uncover these aspects and encourage whole-person learning.

An “imaginative engagement with the unconscious” is the central premise of the spiritual-integrative approach (Dirkx, 2000, p.3). We cannot depend entirely on our own rational construct of understanding. Dirkx and Boyd are the seminal researchers for this framework (as cited in Cranton & Taylor, 2012). Dirkx takes a more open approach to the spirit and soul, while Boyd’s work focuses on the Jungian process of individuation. One of the most meaningful dialogues to have is one between the conscious ego and the deeper, inner workings of our soul (Dirkx, 2001, 2012a). This can metaphorically shine the light on blind spots and produce partial enlightenment or new revelation. Healy’s (2000) work with meditation and TL, demonstrates how this practice of engaging the spirit translates to a higher degree of awareness than cognition alone.

The language of the imagination can use words to engage all five senses, but words are just one form of communication. Images, feelings, symbols, and daydreams can more fully nurture the realm of the soul. It takes a paradoxical relaxing of our consciousness to have this dialogue and let the nature of images emerge. This is a stark contrast to the process of critical reflection, which focuses on ‘how’ or ‘why’ questions, an imaginative engagement might simply ask ‘what’: “What do these emotions feel like, remind me of? What other times have I felt this way?” (Dirkx, 2001, p. 69). ‘Mytho-poetic’ forms of meaning emerge in one’s search for wholeness in this way (Dirkx, 2000).

Emotions are another key premise of the spiritual-integrative framework. Emotions connect to depth psychology, the process of individuation, and the formation of personality. “Emotionally charged images provide access to the psyche, an invitation to the journey of the soul and to coming to know oneself” (Dirkx, 2001, p. 70). Tisdell’s (2008b) work drew students into TL experiences through emotional or humorous media

experiences. Dirkx goes so far as to argue that emotions can constitute the frame of reference on a psychic level, which determines whether or not something may ever be brought from the inner world into consciousness (Dirkx et al., 2006). Table 1 on the next page summarizes these four foundational frameworks of TL in terms of sphere of learning, transformative process indicators, outcomes, and facilitators.

Evolution of Transformational Learning Theory

The foundational body of research on TL has been overly biased towards the perspective transformation work of Mezirow (Baumgartner, 2001; E. Taylor, 1998, 2007). The developmental and spiritual-integrative frameworks also evolved in response to Mezirow. The developmental approach built on the cognitive domain to include psychosocial aspects of consciousness and maturity, while the spiritual-integrative framework departed from the emphasis on cognitive awareness to include the extrarational and the whole person.

While these first-wave frameworks successfully explored the phenomena and dimensions of an individual's TL process in greater depth and evolved as such, the sense of competing frameworks also left the field more fragmented (Gunnlaugson, 2005; E. Taylor & Snyder, 2012). 'Second-wave frameworks' as termed by Gunnlaugson (2005) such as Dirkx's four-lenses or E. Taylor's (2007) seven-lens integrative approach are useful to help organize the theory base. Recently, prominent experts are calling for a more unified theory or meta-theory across disciplines (Cranton & Taylor, 2012; Gunnlaugson, 2008).

The field is progressing towards a more comprehensive and inclusive maturity today as a result of several influences. These include the promulgation of research settings, study factors, integrated perspectives, overlap from other disciplines, and the

Table 1

Summary of Foundational Transformational Learning Frameworks

Framework	Sphere	Process	Outcome	Facilitators
Emancipatory (Freire, 1970)	Cognitive-Social	<ul style="list-style-type: none"> • Self-directed, self-engaged • Dynamic Reflection (on self & society) 	<ul style="list-style-type: none"> • Empowerment • Consciousness-raising 	<ul style="list-style-type: none"> • Active/ liberal learning environment • Social inequities
Perspective Transformation (Brookfield, 2000; Kitchenham, 2008; Mezirow, 1978, 2000; Pugh, 2011; Weissner & Mezirow, 2000)	Cognitive-Rational	<ul style="list-style-type: none"> • Disorienting Dilemma, or Awareness through meaningful experience • Critical Reflection (on assumptions, habits, point of view) • Experimentation • Dramatic epiphany, or Incrementally accrued 	<ul style="list-style-type: none"> • New Frame of Reference (structure of assumptions and expectations) • Elaborated Shift in Frame of Reference • Transformed Points of View (schema of expectations by interpretations, beliefs, attitudes) • Transformed Assumptions (sociolinguistic, moral, epistemic, philosophical, psychological, aesthetic values) • New Actions or Behaviors (instrumental or communicative) 	<ul style="list-style-type: none"> • Disorienting Dilemma • Meaningful Experience • Critical Reflection
Developmental (Daloz, 2000; Kegan, 1994)	Cognitive Psychological Emotional	<ul style="list-style-type: none"> • Personal history • Dialogical Reflection (how & why knowledge is constructed) • Adult Stages of Developmental Maturity & Consciousness 	<ul style="list-style-type: none"> • New Self-Identity (broader/ deeper understanding of responsibility, roles in society, values) • New Epistemology of constructing beliefs (Responsibility, Self-Authoring, Self-Transforming) • New Behavior repertoire based on transformed epistemology (Responsibility, Self-Authoring, Self-Transforming) 	<ul style="list-style-type: none"> • Emotional Benefit/ Risk • Parallel to Previous History • Relationship Inputs • Dialogical Reflection

Framework	Sphere	Process	Outcome	Facilitators
Spiritual Integrative (Boyd & Meyers, 1988; Dirkx, 2000, 2001, 2012a; Healy, 2000)	Spiritual Emotional Psychological Cognitive	<ul style="list-style-type: none"> • Imagination (daydreams, feelings) • Relaxing into the unconscious / spiritual (images, symbols) • Personality development (intuition, sensing, feeling, thinking) 	<ul style="list-style-type: none"> • Integration into Self • New Self-image • New mytho-poetic frames of reference 	<ul style="list-style-type: none"> • Whole person learning • Imagination • Emotional • Spiritual • Unconscious

Based on material from “Transformative Education,” by R. Boyd and J. Myers, 1988, *International Journal of Lifelong Education*, 7, pp. 261-284; “Transformative Learning as Ideology Critique,” (pp. 125-150), by S. D. Brookfield, 2000, in J. Mezirow & Associates (Eds.), *Learning as Transformation: Critical Perspectives on a Theory in Progress*, San Francisco, CA: Jossey-Bass; Daloz, L. A. (2000). “Transformative Learning for the Common Good,” (pp. 103-123), by L. A. Daloz, in J. Mezirow & Associates (Eds.), *Learning as Transformation: Critical Perspectives on a Theory in Progress*, San Francisco, CA: Jossey-Bass; *Transformative Learning and the Journey of Individuation*, by J. M. Dirkx, 2000, ERIC Digest No. 223, ED448305, ERIC Clearinghouse on Adult, Career, and Vocational Education; “The Power of Feelings: Emotion, Imagination, and the Construction of Meaning in Adult Learning,” by J. M. Dirkx, 2001, *New Directions for Adult and Continuing Education*, 89, pp. 63-72; “Nurturing Soul Work: A Jungian Approach to Transformative Learning” (pp. 116-130), by J. M. Dirkx, 2012, in E. Taylor & P. Cranton (Eds.), *A Handbook of Transformative Learning*, San Francisco, CA: Jossey-Bass; *Pedagogy of the Oppressed*, by P. Freire, 1970, New York, NY: Continuum; “East Meets West: Transformational Learning and Buddhist Meditation,” by M. Healy, 2000, in T. Sork, V. Lee, and R. St. Claire (Eds.), *AERC 2000 An International Conference: Proceedings from the 41st Annual Adult Education Research Conference*, Vancouver, Canada: University of British Columbia, Retrieved from <http://www.adulterc.org/Proceedings/2000/healym-final.pdf>; *In Over Our Heads: The Mental Demands of Modern Life*, by R. Kegan, 1994, Cambridge, MA: Harvard University Press; “The Evolution of John Mezirow’s Transformative Learning Theory,” by A. Kitchenham, 2008, *Journal of Transformative Education*, 6(2), pp. 104-123; “Perspective Transformation,” by J. Mezirow, 1978, *Adult Education Quarterly*, 28(2), pp. 100-110; “Learning to Think Like an Adult: Core Concepts of Transformation Theory,” (pp. 3-33), by J. Mezirow, 2000, in J. Mezirow & Associates (Eds.), *Learning as Transformation: Critical Perspectives on a Theory in Progress*, San Francisco, CA: Jossey-Bass; “Transformative Experience: An Integrative Construct in the Spirit of Deweyan Pragmatism,” by K. Pugh, 2011, *Educational Psychologist*, 46(2), pp. 107-121; “Theory Building and the Search for Common Ground,” (pp. 329-358), by C. A. Weissner and J. Mezirow, 2000, in J. Mezirow & Associates (Eds.), *Learning as Transformation: Critical Perspectives on a Theory in Progress*, San Francisco, CA: Jossey-Bass.

general influence of new sciences across the behavioral sciences, education, and organizational theory.

New research areas. Upon the foundational pillar frameworks of TL theory, new frontiers are being explored and evolving. For example, Cranton (2000) explored individual differences in the TL process based on the personality types of Jung and changes in preferred frames of reference based on type. E. Taylor (2001) has cited neurobiology to explore and validate the interconnectedness of emotions to rationality, the unconscious, and memory in its role for TL.

New research settings in TL are also moving beyond a predominant focus on adult education and English as a second language (ESL) higher education settings. In the last 15 years, research has expanded beyond traditional education to include professional healthcare training (King 2008b), learning community retreats (Cohen & Piper, 2000), adult graduate educators (Sokol & Cranton, 1998), organizational learning (Yorks & Marsick, 2000), social activism (Daloz, 2000), service learning (Carrington & Selva, 2010), and cross-cultural understanding (Hanson, 2010).

New sciences. The new sciences are producing a fundamental perspective and developmental transformative influence in the TL field itself. As Gunnlaugson notes, there is a deconstructivist, postmodern bias in what has long been esteemed as the seminal foundations. These postmodern assumptions, which became “rigidified into absolute positions,” included three core areas: “all reality is human interpretation (constructivism), meaning is entirely dependent on context (contextualism), and no single perspective must be privileged (pluralism)” (Gunnlaugson, 2005, p. 337). These assumptions fragmented the field into competing research paradigms, and these limits are now being challenged by systems theory and complexity theory.

Systems theory is a conceptual framework that explores the whole of something, rather than deconstructing it into separate, independent parts. Senge's (1990) Fifth Discipline popularized systems thinking, and critiqued industrial age, conventional assumptions of educational systems which fragmented knowledge. Systems theory adopts a holistic view and explores nested networks of relationships and interrelated dynamic loops, similar to an ecological sciences perspective, rather than seeing processes as simple linear cause-effect chains. In a systems perspective, responsibility for what is happening within a given process is shared across larger parts of the whole.

The implications of systems theory on TL theory are two-fold. First, much of the foundational research has focused on framing linear stages and process developments. Second and more importantly, learning itself is a complex and messy process. The cognitive-rational, cognitive-social, emotional, psychological, and spiritual lines of development identified by first-wave frameworks co-exist to varying degrees of development in the individual learner. Gardner's theory of multiple intelligences identifies even more ways of learning, or developmental lines. Gunnlaugson (2005) proposes that new directions for TL must unfuse traditional stages of development and explore the interplay of learning transformation across various developmental lines and developmental degrees.

Gunnlaugson (2005) also identifies the influence of various states of consciousness which can range from episodic to several days and can include peak experiences, meditative states, or altered states of consciousness. From this point of view, the study of TL as one-dimensional clearly has its limitations.

Complexity theory has additional insights for TL to break down rigid frameworks and binary paradigms. TL tracked with early scientific management theorists and human

behaviorist paradigms which believed that behavior could be measured, dissected, and put back together again to understand the total picture. This is described as the classical Newtonian effect on the study of human behavior and systems (J. Watkins & Mohr, 2001). As quantum physics has emerged on the scene in the physical sciences it has interesting applications for the social sciences as well. The theoretical underpinnings of quantum physics hold paradox and duality in its core assumption base, reflecting a both-and assumption base, not an either-or paradigm. Competing frameworks which have largely built the body of literature in TL fall aside when seen through a complexity lens. A complexity point of view embraces having multiple perspectives at one's disposal. It is more inclusive and dynamic in response to different triggers. For example, at one point of student's TL journey, the cognitive-rational paradigm may have more explanatory power. At a different time, the locus of learning for that individual could fall more within the emotional, soul realm and align to the spiritual-integrative view. Meanwhile, resolving a social consciousness conflict could co-emerge as a generative TL process that might be best explained by the emancipatory framework.

New areas of research explore emergent learning in complexity theory, chaos theory, self-organizing systems, relationships and social construction (Cranton & Taylor, 2012). Gunnlaugson (2007) for example, explored how generative dialogue supports transformation shifts across lines, levels, and states of the learner's consciousness. Hart (2008) explored how states of consciousness such as meditation re-organize patterns of connections in the mind in relationship to TL. Tisdell also cites Dan Siegel's work with 'mindsight,' which although it doesn't specifically reference TL, nonetheless explores the neurobiological organizing structure of mental processes, and discusses how cultivating a 'mindsight' consciousness of our thinking can actually re-wire and re-fire to be self-

transforming (Siegel, 2009; Tisdell, 2012). Complexity theory frameworks introduce new inflection points to the processes and paradigms of TL, which opens the door for more exploratory research to occur.

A metatheoretical discourse would include field developments in systems and complexity paradigms with relevant learning from other disciplines to explore the multiple dimensions and expressions of TL across various contexts and with multifaceted outcomes (Gunnlaugson, 2008). It makes an important distinction from the current bias in the literature which largely remains bound to validating or critiquing the multiple theoretical first-wave paradigms by exploring the process of how individuals experience TL, and weighting the specific form or context as singularly evaluative (Dirkx et al., 2006; Gunnlaugson, 2008; E. Taylor, 2007; E. Taylor & Snyder, 2012).

Transformational Learning in Organizational Development

Organizational development is one of the disciplines that can help inform a metatheoretical discourse on TL. It is of particular relevance to this study because cooperative education consists of a majority of time in the workplace, and shares in the interests of adaptive, lifelong learning and professional development skills. There is increased demand across management and educational practitioners for these adaptive capacities for today's global challenges (Crebert, Bates, Bell, Patrick, & Cragnolini, 2004). Traditionally, TL has focused on individual paradigm shifts, and TL in organization development has focused on higher organizing levels of the system, but a systems perspective is intersecting the two (K. Watkins, Marsick, & Faller, 2012). Henderson asserts that "these two schools of thought, although different in their approach to change, are complementary" and more effective together (as cited in K. Watkins et al., 2012, p. 386).

Organizational development has developed its own vein of TL related to change initiatives and capacity building by other names— ‘learning organizations,’ ‘double-loop learning,’ ‘deep change,’ ‘sustainable change,’ ‘quality circles,’ ‘communities of practice,’ or ‘cooperative inquiry’. It is also concerned with the dynamics of learning for the individual and for the larger social group, be it a division, company, or community. Senge (1990) defines a learning organization as one where “people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3).

Comparatively, this approach is inclusive of cognitive-rational, psychosocial, and emotional lines of individual learning, and heavily concerned with the cultural, group, and organizational contexts and dimensions of learning. As such, it reframes several key processes as outlined by foundational perspective transformation, developmental, and emancipatory lenses in the educational research.

TL is defined in one sense as double-loop learning and was actually popularized by Senge (1990) in *The Fifth Discipline* although based on the work of Argyris and Schon (1974). Argyris and Schon distinguished incremental learning as single-loop learning, where the learner detects and corrects mismatches within an existing framework by changing techniques or action. In contrast, double-loop learning parallels TL where the learner reflects on their actions and the underlying reasoning structure, which then may cause a perspective shift and change in actions. Argyris and Schon proposed that a reflexive loop occurs between our belief structures and the data that we select for framing. This Ladder of Inference model begins with observable data and experiences, and climbs to increasing levels of abstraction as we select data from our observations,

then add cultural and personal meanings, then make assumptions based on these meanings, then draw conclusions, then adopt beliefs about the world, and finally take actions based on our beliefs. This entire structure represents a mental model, or one's map of the world.

From a process point of view, critical self-reflection and also dialogic reflection are important from the organization development perspective of TL. Argyris and Schon (1974) also differentiated theories of action into 'espoused theories' and 'theories-in-use.' A key role of reflection is to explore the difference between what we think or intend to do as espoused, and what we actually do that tends to be governed more by implicit structures (Senge, 1990). Schein's (2010) work parallels this in the organizational culture context with his three levels of (a) visible artifacts; (b) espoused beliefs, values, rules and behavioral norms; and (c) tacit assumptions.

Transformational Learning in the Workplace

TL in the workplace has been researched from the perspective of professional training and development programs (Webster-Wright, 2009), mentoring (Daloz, 2000), leadership development (Poutiatine, 2010; Tafvelin, Armelius, & Westerberg, 2011), management learning through organizational change efforts (Tosey, Mathison, & Michelli, 2005; Yorks & Marsick 2000), teamwork and group learning (Choy, 2009; Cranton, 1996), and executive coaching (Gray, 2006).

One of the key lessons from workplace TL studies that match with an organization development lens is that transformation is context-dependent. There is also growing interest in social theory implications for group constructs, better understanding the individual learning process, and exploring its emancipatory, transformative potential. Cranton (1996) integrated TL models with teamwork, and equated participatory change

with the learning progression of instrumental knowledge to the communicative domain in an emancipative group process that has developed beyond cooperation or collaboration. O'Hara (2003) explored the relationships between individual and group levels of consciousness based on Carl Rogers's person-centered groups and discovered a synergistic capacity that could extend beyond the individual or group states of consciousness separately. She argues the interactive social learning of groups can foster a transformed consciousness, an "emancipatory pedagogy through which people might learn how to 'walk naked into the land of uncertainty' and undertake at individual and cultural levels the deep learning required to exist and thrive in times of paradigmatic change" (as cited in O'Hara, 2003, p. 68). HR looks at learning and leadership competencies based on today's modern needs for agility and complexity, and employers look for these skills in new recruits (Ardichvilli & Kuchinke, 2009).

Outcomes of Transformational Learning

Literature on TL is weighted towards outcomes that have been studied at the individual level and connected to a change in the individual's frame of reference.

In review, outcomes from the four foundational pillars broadly include empowerment and consciousness-raising from an emancipatory framework, new frames of reference, habits, and actions from a perspective transformation framework, new epistemologies and identity roles from a developmental framework, and new self-awareness and mytho-poetic whole person integration from a spiritual-integrative framework. Several of the most common outcomes identified in the literature are:

1. Confidence (Brock, 2010; Cranton, 1996; King, 2000a, 2004, 2008; O'Hara 2003; Scribner & Donaldson, 2001; Sokol & Cranton, 1998)
2. Empowerment (Brown, 2006; Kegan, 2000; King, 2000b, 2008; O'Hara, 2003; Scott, 2003)

3. New frames of reference, such as points of view and assumptions (Brookfield, 2000; Choy, 2009; Cranton, 2000; Hanlin-Rowney et al., 2006; Hanson, 2010; King 2000a, 2004, 2008; Laiken, 2002; Mandell & Herman, 2007; K. Watkins et al., 2012; Yorks & Marsick, 2000)
4. New behaviors or habits (Brock, 2010; Ciporen, 2010; King, 2000b, 2004; Nohl, 2009; Tafvelin et al., 2011; K. Watkins et al., 2012; Yorks & Marsick, 2000)
5. Recognized change by others (Choy, 2009; Cranton et al., 2006; Poutitiane, 2009; Scott, 2003; Tafvelin et al., 2011)
6. New epistemologies (Dirkx, 2001, 2012b; Hart, 2008; Kegan, 2000; Lipson & Cranton, 2009; Tafvelin et al., 2011; K. Taylor & Elias, 2012; Tosey et al., 2005; Webster-Wright, 2009)
7. Self-directed learning, initiative, and responsibility (Choy, 2009; Gray, 2006; King, 2004, 2008; Tosey et al., 2005)
8. New self-awareness (new strengths or learning) (Gray, 2006; Healy, 2000; King, 2000b, 2004, 2008; Cranton, 1996; E. Taylor, 2001; Tosey et al., 2005; Yorks & Kasl, 2006; Velde, Wittman, & Mott, 2007)
9. New identity roles (Choy, 2009; Cohen & Piper, 2000; Erickson, 2007; Kegan, 2000; Sokol & Cranton, 1998; Tennant, 2005)
10. Whole-self integration of learning (Ciporen, 2010; Hart, 2008; Lipson & Cranton, 2009; Scott, 2003; Tafvelin et al., 2011; Tisdell 2008a, 2008b; Webster-Wright, 2009)
11. Emergent possibilities (Dirkx, 2000; Nohl, 2009; E. Taylor, 2001; Ziegler, Paulus, & Woodside, 2006)
12. Cultural awareness (Carrington & Selva, 2010; Hanson, 2010)

Perspective transformation has been the predominant domain of research in the field, and almost exclusively based on the work of Mezirow. Research has broadly substantiated many of Mezirow's linear stages (E. Taylor, 2007). The exact nature of perspective change, through changes in points of view or assumptions that collectively constitute a frame of reference, continues to be dissected and explored (King, 2000a, 2000b, 2004; Nohl, 2009; Tosey et al., 2005). Yet a fundamental change in 'frame of reference' is widely accepted as an outcome of TL (Dirkx et al., 2006). New points of

view such as embracing capacity for a management transformation program (Yorks & Marsick, 2000), or changing understood assumptions about classmates in group work (Ziegler et al., 2006), or new confidence and habits of ESL students embracing their ability to learn and acculturate as adult learners are all examples of TL outcomes.

Developmental TL investigations commonly identify outcomes of new epistemologies, self-directed learning, initiative, and self-awareness that leads to new identity roles. Researchers have employed case studies or traced themes between educational history lifelines and current learning (K. Taylor, 2000), and have explored neuro-linguistic programming as a narrative construct for personal leadership transformation in an organizational change implementation (Tosey et al., 2005) to identify developmental transformation outcomes founded in raised self-awareness or self-directed learning. Epistemological outcomes have also been identified via differences in case studies of students dealing with crisis and conflict (Kegan, 2000).

Spiritual-integrative research studies have identified TL outcomes that integrate imagery, the extrarational, or spiritual aspects into a whole self integration. Meditation was reported to increase new awareness from the unconscious (Hart, 2008), photographic imagery was used to open up different forms and perspectives on personal learning journeys (Lipson & Cranton, 2009), and narrative inquiry uncovered the power of analogy, metaphor, and right brain-entry to unfreeze hardened attitudes or passivity and integrate them into self and society (Scott, 2003). In a study of transformative community organizers, a research participant stated " 'We're after their souls'...seeming to know by time-tested work that stories, particularly those from the Biblical myth, engage people's imaginations, forcing community members to come back, to participate in building a social vision to sustain democracy" (Scott, 2003, p. 267).

Empowerment as a TL outcome is conceptualized broadly as a commodity, real or perceived, across individuals, communities, and societies. Power dynamics can play out in the internal self-construct of the individual's internal identity and development (Gray, 2006), or in the infused roles and relationships of learners to their classroom instructors (Cranton & Wright, 2008), managers (Yorks & Marsick, 2000), or families and peers (Brown, 2006; King, 2004).

The study of TL outcomes cannot be de-coupled from study of the conditions that allow TL processes to occur. TL process facilitators will be explored next.

Facilitators of Transformational Learning

TL is a process, whether incremental or epochal. Relevant to each framework are process facilitators outlined previously, such as an active learning environment, meaningful experience, emotions, a disorienting dilemma, critical or dialogical reflection, or the imagination, unconscious or spiritual realms (Dirkx, 2008; E. Taylor, 2007; E. Taylor & Snyder, 2012; K. Taylor, 2000). In the past decade, researchers have put more focus into the study of how to foster TL, and three significant facilitative factors emerge in the literature, context, relationships, and power.

Role of context. TL is a high-context process, subject to both the internal environment of the individual and the external conditions of learning. E. Taylor's (2007) review notes that most TL experiences seem to share certain general outcomes such as confidence, assertiveness, and self-direction, and yet the specific environmental context may yet be a more significant factor, such as the context of ESL students addressing cultural and developmental barriers to success, which became the key facilitators and locus of their TL (King, 2000b). Workplace TL studies such as Yorks and Marsick's (2000) 3-year review of a management transformation program honed in on an

organizational culture of trust and sustained coworker support to help facilitate the openness and readiness of individual learners. E. Taylor and Snyder (2012) note that with the growing trend of research studies taking place in less formal settings, it will be important to further explore the role of context in these more complex environments.

Relationships. The role of relationships in fostering TL is critical. Trust breeds an openness to question, share, explore new meaning, or come to a shared understanding (K. Taylor & Elias, 2012).

Transformation is often understood as a lonely and rather suddenly event—Saul falls off his horse and becomes transformed into Paul. This may be true in some cases, but as Courtenay, Merriam, and Reeves (1998) point out, the 'catalytic events' that often precipitate transformation are not isolated but rather 'emanate from a support system of family and friends, support groups, and/or spirituality.' (as cited in Daloz, 2000, p. 106)

Relationships are largely seen as a positive influence on TL outcomes, through peer and mentoring relationships. Cranton and Wright (2008) identified a shift in the traditional student to teacher authority relationship towards a compassionate, empowering teacher as learning companion role which enabled greater discovery and also shifted the learner's frame of reference about educator-student roles. O'Hara (2003) reports from their collaborative inquiry research that person-centered groups or communities accelerated the social learning of both the individual and the group in reciprocal ways. Nohl's (2009) biographical study of TL experiences highlight the interesting role that unscripted social recognition plays, noting "in light of the response of others, an action that was originally spontaneous and incidental becomes significant," and a new focus for the learner's transformation (p. 294).

Relationships are not always a positive influence, but sometimes may present barriers via emotional or perceived risk for the learner's existing network of friends and

families, such as in King's (2004, 2008) studies of ESL students or healthcare professionals entering new frontiers. Relationships are both emergent and complex in fostering TL, and also offer more opportunity for study in less formally scripted environments than the classroom.

Power. Power as a facilitator or barrier to TL has been most often studied from a social critique or cross-cultural perspective. Brookfield (2000) explored the integral nature of power relationships and hegemonic assumptions in TL, assumptions which may serve the interests of others but actually destroy individual well-being. Issues of authority roles, personal heroes, status or class from our own experience or in the portrayal by mass media significantly affect our personal worldviews and dominant ideologies of society. Without an element of ideology critique, adopted from critical social theory, one may never go deep enough to uncover or question assumptions that are embedded in habits, culture, myths, or personal emotions.

Power may mask our belief systems or limit the data we select from, another reason why critical reflection alone is not a sufficient catalyst for TL. Power can also show up in social accountability in the workplace (Choy, 2009), peer dynamics (Cranton, 1996; Ziegler et al., 2006) or emotional responses, whether cognizant (Kreber, 2012) or under the surface (E. Taylor & Snyder, 2012). Power has also been explored from cross-cultural awareness (Carrington & Selva, 2010; Hanson, 2010) and social transformation perspective, an inside-out approach, where transformation in the institutions and norms of society come first as a change in individual worldview, personal identity, or public role. However, it can also be the very sense of otherness, networked in relationships and service to society that serve as their driver for change. In one study of community organizers, Scott (2003) reports,

Spirituality for these organizers is a corporate act, not an individual phenomenon, in an open, generous, warm, and embracing community of diverse people. Spirituality is not isolated to the soul, but rather cannot live outside action of the body; nor is it isolated to the domain of the individual but a holistic part of the community. (p. 267). Traditionally, power has been studied from this larger social scale perspective, but the complex role of individual context with power and personal histories also offer more opportunities for future exploration (E. Taylor & Snyder, 2012).

Summary, Issues, and Challenges

Several issues and challenges have been presented in the field. The predominant research literature delves into the TL process of the foundational first-wave frameworks, particularly Mezirow. This has resulted in increased exploration of the role of context, the nature of catalysts, other methods of learning, the significance of relationships, and more about fostering TL (E. Taylor, 1998, 2007). The practice of fostering TL however, is more than a methodology, but also a philosophy with various assumption bases (Cranton & Taylor, 2012; Gunnlaugson, 2005). The field has also largely embraced a philosophical bias to postmodern assumptions which has left fragmented theoretical paradigms.

The tension of fragmentation and integration in the field is recently recognized (Cranton & Taylor, 2012). Seminal researchers tend to explore the framework which most interests them (Dirkx et al., 2006), which in the organization development ladder of inference lens, already illustrates a reflexive loop between belief systems and selection of data. Specific theoretical assumptions of cognitive, social, rational, emotional, developmental frameworks are selectively exploring specific intelligences or lines of development and their related outcomes, and the field has not yet come to an understanding of how to integrate and evaluate different research interests (E. Taylor & Snyder, 2012).

Social–individual tensions are also recognized in the field (Cranton & Taylor, 2012; E. Taylor, 2007). One paradigm explores the unit of analysis as the individual, with the various influences of socio-developmental context, relational inputs, collaborative inquiry, or group learning on the individual’s learning process. The ideology critique and emancipatory paradigms are more rooted in the societal level of analysis, and explore power and the co-emergence of socio-cultural reconstruction. While the role of context, interrelatedness of individual with the group, and power have been advanced more recently by the study of situated learning, E. Taylor's (2007) review of the literature noted that more could be explored by the role of culture and also less formal research settings.

This study seeks to add to the body of knowledge in the TL field and a richer understanding of the educational implications of cooperative education and internship programs in several ways. First, it will explore the nature of TL in support of a broader metatheoretical discourse by examining the interplay of TL outcomes across various developmental lines and taking a whole person approach. It does not intend to evaluate competing frameworks of TL literature, but rather to open up a holistic view of the learner's experience that is not exclusionary by paradigm. It will employ an appreciative inquiry, generative framework to explore the most meaningful learning from the student's perspective. This strengths-based approach is also a particular departure from much of the problem-oriented research in the field.

Second, this 15-week corporate immersion experience across different majors, student demographics, and company cultures will provide a less formal and more malleable external environment to explore a richer context of study factors, with less than 10% of the participants' time spent in class-structured experiences.

Third, it will add to the understanding of cooperative education learning for both workplace and educational administrators. Much of the literature on cooperative education is focused on employment skills learning outcomes (Hodge et al., 2011; Wilson, 1989). Reflection as a critical pedagogical facilitator for experiential learning has also been richly studied. And while ‘lifelong learning’ has been a prized outcome of educators, the evaluation of education is typically controlled by outcomes-based assessments, not the growth or dimensions of the individual learner’s epistemologies. This leaves a significant gap in bridging to learning as a professional, which can be complemented by learner-centric study of TL both in the workplace and in work-based learning programs within higher education (Webster-Wright, 2009). A deeper understanding of student-worker learning is a high-leverage commodity of value to all parties involved in work-based learning program design.

Chapter 3

Methods

The purpose of this study is to explore the conditions and outcomes of student TL in a semester-long community college work placement context. The research questions were:

1. What outcomes characterize student TL in a community college work placement context?
2. What personal, program, or worksite conditions tend to impact student TL?

This chapter describes the methods used in this study. The research paradigm and design is described first, followed by the procedures related to participant sampling, interviewing, and analyzing the data.

Research Paradigm and Design

This study used a sequential mixed-methods approach to build upon the existing literature and explore conditions and outcomes of adult TL. A sequential mixed-methods design involves two phases. The first research phase consists of the collection and analysis of quantitative data. This is followed by the collection and analysis of qualitative data, which can build upon the learning from the quantitative analysis (Creswell, 2009). This methodology aids in the explanation and interpretation of relationships between variables. The study design first explored the extent to which participants experienced or did not experience TL along a set of a priori TL outcomes. The dependent variable was selected to be TL, and independent variables were then explored as various personal, program, or worksite factors which impacted the degree of TL.

E. Taylor (2007) noted that the vast majority of the research on adult TL has been conducted through qualitative studies, and identified a need to include more quantitative

approaches. Quantitative approaches have typically been conducted from a positivist perspective, which attempts to measure phenomena to get at the truth of it (Merriam & Kim, 2012). Quantitative study determines which variables to study, chooses appropriate measurement instruments, and reports on results such as the frequency of the phenomenon or correlation of variables.

One such survey instrument, King's 1998 Learning Activities Survey, has been adopted by a few other studies (Brock, 2010; Glisczinski, 2007) and seeks to measure perspective transformation (as cited in King 2004; Merriam & Kim, 2012). Because the researcher was interested in exploring metatheoretical, holistic student perspectives of TL on their semester long community college work placement, a simpler assessment was developed based on general outcomes substantiated by the body of literature reviewed. In this study, the degree to which participants experienced or did not experience TL was defined across the following set of a priori outcomes as defined in Table 2.

Table 2

A Priori Outcomes to Survey Transformational Learning

Outcome	Questions
Overall Change	To what degree were you changed through this experience?
Confidence	To what degree has your confidence increased?
Assumptions Challenged	To what degree were your assumptions challenged?
New Behaviors and Habits	To what degree have you developed new behaviors or habits?
Self-Directed	To what degree have you grown more self-directed in your learning?
Holistic Integration of Learning	To what degree have you integrated new areas of learning?
Self-Growth	I discovered new strengths or learning about myself
New Possibilities	I see new possibilities for my future

Qualitative data collection and analysis consisted of the second phase of this research study. Qualitative research explores the nature of meaning as bounded by four common philosophical paradigms: positivism, constructivism, critical theory, or postmodernism (Punch, 2005). Both the research question and the researcher's view of

reality will be reflected in the approach to qualitative research (Merriam & Kim, 2012). Because TL is so personal, this study lent itself to a constructivist epistemology, where the phenomena are understood in the meaning-making experience of the research participant.

Qualitative research is exploratory and useful to help elicit the important variables to study (Creswell, 2009). This study looks to explore other ways of TL beyond perspective transformation towards a holistic, metatheoretical understanding. This study also explores TL in a research setting of community college cooperative work placements, which has not been previously well-researched in the body of literature. Reviewers of the literature on TL have additionally called for newer exploratory methods of inquiry to be used, such as narrative inquiry, imaginative arts, and collaborative inquiry (Cranton & Taylor, 2012; Merriam & Kim, 2012; E. Taylor, 2007; E. Taylor & Snyder, 2012).

Because the researcher was interested in learning transformations which were most meaningful to the student, this study experimented with an exploratory Appreciative Inquiry (AI) protocol. AI is a philosophy and practical method to search for the best in people, their organizations and the world around them. It involves systematic discovery of what gives life to an organization or a community when it is most effective and most capable. AI is purposefully positive, based on stories and dialogue, highly participative, and stimulates vision and creativity, which fits well with the research questions and parameters of this study. The five principles of AI are (J. Watkins & Mohr, 2001):

1. Constructionist Principle. We look at the world through our own filters. We create our reality through the conversations we have.
2. Anticipatory Principle. We will create what we imagine. We get more of what we look for.

3. Poetic Principle. Organizations and communities are full of stories to be interpreted. What seems like a constraint can be the source of resilience and innovation.
4. Simultaneity Principle. Inquiry and change are simultaneous. The questions we ask set the stage for the things that we find. Our questions are fateful.
5. Positive Principle. We naturally move towards what is inspiring and life giving. The more positive the questions the greater and longer lasting the change.

An AI protocol was selected as an exploratory qualitative approach for several reasons. First, AI is paradigm shift from problem solving to focusing on potential and possibility. It supports a departure from one of the critiques of TL theory to date, which has been the over-reliance by researchers on Mezirow's original view of transformative learning rooted in a disorienting dilemma and cognitive rational processes (Baumgartner, 2001, 2007; E. Taylor, 2007; E. Taylor & Snyder, 2012). The Positive Principle also aligns more to the Deweyan role of experience in the meaning-making process of the learner, in highlighting what is lifegiving (Pugh, 2011).

Second, AI is an inclusive strategy that values the whole individual and the whole system, which is a complementary approach for the call for a more unified theory of TL (Cranton & Taylor, 2012; Gunnlaugson, 2005). Third, AI is underpinned by the same constructionist principles valued by TL theorists in exploring how individuals construct meaning from experiences. We look at the world through our own filters; we create our reality through the conversations we have (J. Watkins & Mohr, 2001).

Lastly, AI itself can be considered inclusive of a transformative, creative process. The Anticipatory Principle says we will create what we imagine, and integrates the dialogic impact of the interview process and simply asking the question as an influence on the research participant. The Poetic Principle believes in engaging beyond the

cognitive-rational mind to narrate and interpret the stories of life, and discover new meaning. The Simultaneity Principle aligns to possibilities for generative learning (Gunnlaugson, 2007; Nohl, 2009) in the empirical reflection process.

AI is often utilized in a five-step process to understand and design change in organizations (J. Watkins & Mohr, 2001):

1. Define. What to learn about; create the inquiry process. Choose the positive as the focus. Build upon positive aspects of people and experience.
2. Discover. The best of what is. Uncover meaning and purpose through story telling. Inquiry begins with conversation in which people share stories about those things that the organization values.
3. Dream. Visualize what could be. Create shared images of a preferred future. Build on themes that emerged in the conversations. These shared images act as a guide for creating the organization's preferred future.
4. Design. Co-create what will be. Organizations identify specific action steps to take individually or in groups.
5. Destiny. Living and sustaining change. Make it happen. Once the image is created, and people are acting in ways that are congruent with the image, the organization becomes that image.

It was only in the scope of this research study to employ the first three steps, Define, Discover, and Dream, in an abbreviated interview and survey format.

Participants

In this study, the researcher knew the participants and the program. She facilitated the interviewing and employer selection process for the student work placements and served as a co-faculty for the academic course associated with the program for the duration of the semester. She acknowledges her own biases about TL, as observed in the classroom or evolving through relationships.

For the quantitative portion of the study, a convenience sample was obtained via those who responded to the request to complete a survey instrument. All participants in

the semester-long cooperative work placement were given the opportunity to participate in the quantitative portion of this research study. Thirty-five students, or 78% of all participants invited, responded to the request and provided a sample size which was large enough to be statistically significant and representative to compare frequency and scope of a priori TL outcomes across independent variables.

Qualitative research samples are often small and purposive (Punch, 2005).

Participants were invited to interview based on their relevance to the research question in a preliminary analysis of the data collected in the quantitative portion of the study. Eleven students were invited to interview based on their responses which indicated they experienced the highest degree of TL. Responses to the eight outcomes of TL were summed and triangulated with open response data for this survey question. The researcher confirmed that there was representation across various employer worksites and majors of study in this participant sample. Nine students ultimately participated in the interview phase, as one student did not respond and another responded she was out of town for the interview.

Data Collection, Confidentiality, and Consent

At the end of the semester long work placement experience after all academic requirements were completed and graded, an invitation to participate in this research study was emailed to all students. The nature and purpose of this study was described with a link to an online survey. This survey instrument (Appendix A) was created based on a review of the literature and an understanding of the program design. The survey instrument captured the degree of TL outcomes experienced by the student, and explored the impact of personal learning, program, or worksite conditions on their experience. The

survey also included open responses to questions in an AI vein about their most valued experiences, accomplishments, expectations being fulfilled, and personal learning.

The online survey instrument captured the participant's consent to participate in the study upfront before continuing with the remainder of the survey. Students completed the survey questions based on their own individual experiences and the survey took about twenty to thirty-five minutes to complete. The survey also collected demographic information about the individuals, including their age, gender, ethnicity, education, prior work experience, and years of residency in this country. A thank-you email was sent to all participants upon completion of the online survey instrument.

An invitation to interview (Appendix B) explaining the nature and purpose of the interview was later sent to the purposive sample identified of ten students. All ten students responded to the request to interview, and nine were available to interview. At the start of the interview the researcher thanked each student for their participation and answered any questions about the study purpose before collecting the signed research consent form (Appendix C). These semi-structured interviews were conducted in an AI approach and lasted for approximately 60 to 90 minutes. The interview protocol (Appendix D) was also created based on a review of the literature and an understanding of the program design. Students were asked to provide deeper context around their learning and experience as a result of participating in the program, including examples of professional success, personal growth, valued achievements, and the impact of personal, program, or worksite conditions on their experience.

In this type of qualitative interview the researcher is not viewed as external and impersonal, but able to nuance the disclosure of the participant to a deeper, more complex understanding. As well, the researcher can be influenced by the emerging discussion,

which has both strengths and limitations (Punch, 2005). In this case, the researcher had also already established a level of intimacy with each of the student participants. To enhance the reliability and validity of the results and remove some of the subjectivity of interpretation, the researcher intermittently summarized the participant's responses for participant feedback and clarity.

Student interviews were conducted face-to-face, electronically recorded, and transcribed by a professional transcription service. The final transcripts varied from 11 to 23 pages and yielded 159 pages of text.

Data Analysis

In a mixed-methods study, a data analysis explores general statements and themes elicited from the qualitative portions to enrich measurements obtained on the research question being investigated. The data gathered from the quantitative portion of the study were used in two ways. First, as already outlined, the data were analyzed to select a purposive sample of students who experienced the highest degree of TL. Second, the data were analyzed to answer the research questions.

Descriptive statistics were calculated for the quantitative survey data. Statistical t-tests of difference in means were performed to compare the extent to which participants experienced or did not experience TL along a set of a priori outcomes. This was followed by a quantitative analysis of any variation between demographic or placement data using an ANOVA test for variance. Inferential statistics were also performed to compare those students who had experienced a high degree of TL with those students who had experienced a low degree of TL and assess the impact of various personal, program, or worksite factors.

The qualitative data were examined and the researcher identified common themes across participants' responses utilizing the framework outlined by Miles and Huberman (1994, as cited in Punch, 2005). The researcher first read through the interview transcripts and made notes to help familiarize and reduce the volume of data. The data were organized into spreadsheets by interview question, and coded to develop themes and categories. The researcher initially used inductive codes as generated through the process of analyzing the data. Then the researcher employed the use of a priori codes which aligned to the outcomes of TL generated by the literature and developed prior to the analysis. The researcher also asked a second party to code a sample of the transcripts and themes for inter-rater reliability and to assess the validity of the results. Inter-rater reliability was strong. Where the external coder and researcher did not agree, discussion occurred and definitions were clarified. Ultimately, out of 51 sets of inductive and a priori codes, only 3 were missing. Descriptive statistics were also calculated for each of the themes reported.

Summary

This chapter reviewed the research methodology for this research project, including the research paradigm and design, sampling, participant consent and confidentiality, data collection, and data analysis procedures. This study used a sequential mixed-methods approach to address the question of what outcomes and conditions characterize TL in a semester long community college work placement context. This study also employed an AI research paradigm to explore the most meaningful learning experiences for students. Thirty-five students participated in an online survey instrument. Nine students were identified who had experienced a high degree of TL and participated in follow-up interviews. Descriptive and analytical statistics were performed on the

participant data, enriched by a content analysis of the study findings reported in the next chapter.

Chapter 4

Results

This chapter reports the research findings which emerged from this study. This study explored the conditions and outcomes of student TL in a semester-long community college work placement context. Specifically, this study explored two questions:

1. What outcomes characterize student TL in a community college work placement context?
2. What personal, program, or worksite conditions tend to impact student TL?

Characterization of Transformational Learning

Thirty-five students from work placements across seven companies completed a survey at the end of their semester-long experience. Professional placements spanned accounting/ finance, business operations, event planning, engineering, graphic design, information technology, marketing/ community relations, and paralegal. Students ranged from 19 to 47 years of age.

TL has been broadly defined in the literature to include aspects of perspective transformation, developmental growth, holistic, emancipatory and social learning. Evidence of TL was initially explored through the use of a survey instrument, which included questions on eight transformative factors substantiated in the body of research: overall change, confidence, assumptions challenged, new behaviors or habits, self-directed in learning, integration of new learning, discovery of new strengths/ self-awareness, and discovery of new possibilities.

To establish a comparison of high versus low TL, student scores were calculated to provide a mean across the set of eight questions. The distribution of scores was triangulated with the comments portion of the survey question to classify students as high

TL or low TL. Out of 35 total students respondents, 11 students scored high (mean > 4.0), and 8 students scored low (mean <3), with comments consistent in their survey responses to match this distribution.

A t-test of means between the low and high groups was found to be significant across all eight variables used to capture degree of TL at the .01 significance level (see Table 3).

Table 3

Characterization of High and Low Transformational Learning

	New Behaviors/ Habits	SDL	Learning Integration	Overall Change	Assumptions Challenged	Confidence	Self- Growth	New Possibilities
Mean All	3.26	3.46	3.34	3.26	3.14	3.86	3.89	4.03
Variance	1.43	1.49	1.35	1.02	1.18	1.42	1.05	1.62
Standard Deviation	1.2	1.22	1.16	1.01	1.09	1.19	1.02	1.27
High TL Mean	4.64	4.55	4.45	4.09	4.09	4.64	4.55	4.55
High TL SD	0.5	0.52	0.52	0.54	0.83	0.5	0.52	1.04
Low TL Mean	2	1.75	2	2.5	2.25	2.62	2.88	2.75
Low TL SD	0.53	0.71	1.07	0.93	1.16	1.41	0.99	1.28
T-test Value	10.87	9.46	5.99	4.35	3.82	3.86	4.35	3.26
Significance	<0.001	<0.001	<0.001	0.001	0.002	0.004	0.002	0.006

All N = 35, on a scale of 1-5; High TL N = 11; Low TL N = 8; TL = transformational learning; SDL = self-directed learning

Comparative Outcomes for High and Low Transformational Learning

Comparative outcomes for students who experienced a high degree of TL versus a low degree of TL were studied in three ways: how much of a change occurred, how many a priori indicators of TL were involved, and in what context these TL processes occurred.

First, how much of a change occurred was captured through students' self-reported rankings of the degree of transformation they experienced along eight survey variables. Second, qualitative data captured through five free response survey questions was analyzed to assess the scope and frequency of any of the a priori TL outcomes identified in the literature. Finally, contextual themes in the qualitative data were analyzed to provide more understanding of facilitators associated with high or low degrees of students' TL.

Comparative strength of transformational learning outcomes. The degree of TL reported by all 35 students across eight TL variables is captured in Table 3. Over all participants, students ranked seeing new possibilities (mean = 4.03), self-awareness and growth (mean = 3.89), and increased confidence (mean = 3.86) the highest outcomes of their semester-long experience. The high TL students however, reported they experienced the most change in developing new behaviors and habits (mean = 4.64) and increased confidence (mean = 4.64). Just beneath this, they experienced a change in self-awareness and growth (mean = 4.55), new possibilities (mean = 4.55), and self-directed learning and initiative (mean = 4.55). All of the TL outcomes surveyed were ranked higher for this group (range of means = 4.09 to 4.45).

The low TL students reported much weaker outcomes. Students reported they experienced the most change in developing self-awareness and growth (mean = 2.88) and seeing new possibilities (mean = 2.75), however still well below the degree of change reported by the high TL group. In contrast to their high TL peers, self-directed learning and initiative (mean = 1.75) and new behaviors and habits (mean = 2) received the lowest ranked marks for their semester-long experience.

Evidence in support of this is replicated in the free survey response comments. One high TL student wrote, “I have developed new habits in my life. I have more confidence on my professional skills, and have integrated new areas of learning.”

Another student commented, “To be honest I changed quite a bit throughout this experience... the people around me were just great and had that will to help you out anytime. Also, now I am more confident.”

Five of the eleven high TL students also reported that their goals had changed since beginning their internship program, citing the addition of an academic minor or switching their major to pursue a specific interest in a new career path. In comparison, none of the eight low TL students reported a change in their goals, although one did formulate a more nuanced career specialty for his major.

Comparative scope of transformational learning outcomes. The statistical strength of the students' self-reported rankings was vetted by an analysis of free responses to five survey questions, across a broader scope of twelve a priori TL outcomes identified in the literature. The free responses elicited 239 total comments reflecting students' achievements, personal learning, most valued aspects, expectations, and challenges of their work placement experience. 132 of these comments revealed a dimension of one of nine a priori TL outcomes (see Table 4). (Insufficient data was available to code for three of the a priori outcomes, a new epistemology, a new identity role, or a recognized change by others). To capture both the depth and breadth of responses, the number of times a theme was mentioned and the number of survey respondents who mentioned a theme are both reported.

A clear majority of the high TL student respondents demonstrated multiple TL outcomes, across at least six indicators. This breadth supports the students' overall higher

degree of TL as self-ranked. Conversely, significantly weaker indicators were found in the low TL student comments. Less than 25% of the low TL student respondents revealed any demonstration of eight of the ten a priori TL outcomes.

Table 4

Comparative Frequency and Scope of A Priori Transformational Learning Outcomes

A Priori TL Outcomes	Comments				Respondents			
	High TL		Low TL		High TL		Low TL	
	N= 95	%	N= 37	%	N= 11	%	N= 8	%
Assumptions Challenged	22	23%	9	10%	10	91%	5	63%
New Behaviors/Habits ^{1, b}	21	22%	2	2%	8	73%	1	13%
Self-Growth ^{2, a}	19	20%	11	12%	8	73%	6	75%
Confidence ¹	10	11%	2	2%	6	55%	2	25%
Reframe Point of View	8	8%	3	3%	6	55%	2	25%
New Possibilities ^{2, a}	8	8%	5	5%	5	45%	1	13%
SDL ^{2, b}	7	7%	2	2%	6	55%	2	25%
Empowerment	2	2%	3	3%	1	9%	2	25%
Holistic Integration	2	2%			2	18%		
Cultural Awareness	1	1%			1	9%		

¹Highest ranked by High TL survey rankings; ^aHighest ranked by Low TL survey rankings; ²Second highest ranked by High TL survey rankings; ^bLowest ranked by Low TL survey rankings; TL = transformational learning; SDL = self-directed learning

Several similar patterns emerge in the comparative strength of outcomes reported by high TL and low TL students in their quantitative survey rankings, as evaluated against the frequency and scope of TL outcomes identified in their free survey responses. For the high TL students, new behaviors and habits and increased self-awareness and growth remain near the top, articulated by 73% of the respondents. 55% of the high TL students also reported higher confidence and becoming more self-directed and responsible for their learning, with new possibilities not far behind at 45% of respondents.

One interesting anomaly in comparing the data sets stands out. Nearly all of the high TL respondents (91%) wrote about how the internship experience challenged their pre-conceived expectations and assumptions, yet ranked it among the lowest variables of

influence on their degree of TL experienced. This indicator alone is not a recognized a priori TL outcome, however over half of these students (55%) also wrote about how this reframed an aspect of their point of view. A reframed point of view is a recognized a priori TL outcome. In combination, this represents a strong finding for characterizing outcomes of TL that was missed by students' self-reported survey rankings alone.

Among the low TL students, only two indicators were significantly present. The most common low TL outcome was increased self-awareness and growth, which parallels the students' self-ranked survey responses. Interestingly, self-growth was reported equally as high by both low TL and high TL students, at 75% and 73% of respondents respectively. However, the high TL students made nearly twice as many comments as the low TL group. This indicator presents an interesting inflection point for characterizing outcomes of TL. Challenged assumptions were also frequently revealed by the low TL students, reported by 61% of the group.

Comparative Facilitators of High and Low Transformational Learning

An exploration of the context around the students' experiences provides deeper understanding for the characterization of TL outcomes. Two factors emerged as facilitating differences between the groups of high TL and low TL students. The first facilitator is the role of emotions in the student's positive or negative attachment to various aspects of their experience. The second facilitator is the set of learning content themes which provided the conduit for the students' TL processes.

Role of emotions. The positive or negative nature of the experience notably impacted the characterization of TL outcomes (Table 5). Nine of the eleven high TL students (82%) attached positive sentiments to multiple aspects of their transformational experiences, whereas 6 of the eight low TL students (75%) attached negative sentiments

to their experiences. In looking at a key variable of assumptions challenged for example, 64% of the high TL students had positive things to say, but none of the low TL students had any positive comments. Some student comments were simply neutral, but nearly 40% of all low TL students reported that their assumptions were challenged in ways that did not meet their expectations. This was often related to job fit, coworker relationships, and supervision. Half of the low TL respondents who reported growth in self-awareness were also responding to aspects of the job, company culture, coworker or supervisory relationships that they didn't like or discovered didn't fit with their work style. Several also reported characteristics of resilience and patience to overcome obstacles and challenges.

Table 5

Comparative Emotional Influence on A Priori Transformational Learning Outcomes

Influence	A Priori	Comments			Respondents			
		High TL N = 26	Low TL N = 15	Total N = 41	High TL N= 11		Low TL N= 8	
Negative	Assumptions Challenged	1	5	6	1	9%	3	38%
	Self-Growth	1	4	5	1	9%	3	38%
	New Behaviors/Habits	1		1	1	9%		
	Empowerment		2	2			1	13%
	SDL		1	1			1	13%
Negative Total		3	12	15	2	18%	6	75%
Positive	Assumptions Challenged	12		12	7	64%		
	Self-Growth	3	1	4	3	27%	1	13%
	New Behaviors/Habits	2		2	2	18%		
	Reframe Point of View	2		2	2	18%		
	SDL		1	1	2	18%	1	13%
	Confidence	1		1	1	9%		
	New Possibilities	1	1	2	1	9%	1	13%
	Holistic Integration	1		1	1	9%		
Cultural Awareness	1		1	1	9%			
Positive Total		23	3	26	9	82%	2	25%

TL = transformational learning; SDL = self-directed learning

Learning context. Learning context themes provide a richer backdrop for understanding patterns of where TL is occurring. The five free response questions elicited 239 total comments reflecting students' achievements, personal learning, most valued

aspects, expectations and challenges of their work placement experience. The findings indicate that personal learning, professional learning, and work culture and its relationships, were the strongest themes of impact for the students. Additional themes related to career learning and professional conduct were also broadly represented in the data (Table 6).

Personal learning was reported by all 11 high TL students and all 8 low TL students for at least one aspect of growth. A commonality for both groups was students discovering new personal strengths or better understanding their preferred work style (n = 8 and n= 6). Overall however, the high TL students made twice as many comments regarding their personal learning than their low TL peers (n= 28 vs. n= 12). Discrepancies between the high TL and low TL groups are particularly high for increased confidence (n= 8 vs. n= 2) and growth in prioritization and time management (n= 8 vs. n= 0).

Professional learning exposure had the next highest influence over the likelihood of the student experiencing TL. 91% of the high TL students commented on new professional knowledge or hands-on technical skills acquired during the internship experience, as opposed to 38% of the low TL students who complained about a lack of challenge in their job. None of the high TL students complained about a lack of challenge. Rather, 55% of the high TL students also reported learning new professionalism through organizational skills on the job, but none of the low TL students did.

Work culture and work relationships also emerged as influential themes for the students. 91% of the high TL and 88% of the low TL students wrote about their work culture. The high TL students however, had much more to say than their low TL peers

Table 6
Comparative Learning Context Themes

		Comments			Respondents			
		High TL	Low TL	Total	High TL		Low TL	
Theme	Sub-theme	N=148	N=91	N=239	N=11	%	N=8	%
Personal Learning	Time Management*	8		8	8	*73%		
	Strengths/ Work Style	8	6	14	4	36%	4	50%
	Confidence	8	2	10	4	36%	2	25%
	Goal Setting	3	1	4	3	27%	1	13%
	Character/ Resilience	1	3	4	1	9%	2	25%
Personal Total		28	12	40	11	100%	8	100%
Professional Learning	New Technical Skills & Professional Knowledge*	31	12	43	10	*91%	5	63%
	Not Challenged		7	7		0%	3	38%
Professional Learning Total		31	19	50	10	91%	7	88%
Work Culture	Company Culture*	15	12	27	9	*82%	7	88%
	Leadership	3		3	2	18%		
	Teamwork	7	3	10	7	64%	3	38%
Culture Total		25	14	39	10	91%	7	88%
Work Relationships	Coworkers*	11	6	17	7	*64%	5	63%
	Supervision	4	8	12	4	36%	6	75%
	Mentoring/ Exposure	5		5	2	18%		
Work Relationships Total		20	14	34	10	91%	6	75%
Class Relationships	Professors	1		1	1	9%		
	Classmates	1	1	2	1	9%	1	13%
Relationships Total		22	16	38	9	82%	7	88%
Career Learning	Career Planning	7	8	15	6	55%	4	50%
	Networking	6	1	7	4	36%	1	13%
	Educational Path	4	1	5	3	27%	1	13%
	Job Fit	4	7	11	3	27%	4	50%
Career Total		21	17	39	9	82%	6	75%
Professional Conduct	Communication Skills	10	4	14	6	55%	3	38%
	Organizational Skills	6		6	6	55%		
	Professionalism	5	8	13	2	18%	5	63%
Professional Conduct Total		21	12	33	8	73%	6	75%

*Highest Reported Sub-themes; TL = transformational learning

about teamwork (n = 64% vs. n= 38%) and leadership aspects (n = 18% vs. n= 0%) of their employer's work culture. Work relationships were strongly connected to the impact of the work culture. Two-thirds of the student interns commented about the impact of coworker relationships on their job experience, 64% of the high TL group and 63% of the low TL group. Again, the high TL had more to say in their comments and also wrote about mentoring and executive exposure (n= 5), whereas none of the low TL students did. Conversely, twice as many low TL student comments were made about supervision than for the high TL students. Representing 75% of the low TL student group, supervision was second only to company culture (n= 88%) across all content themes reported by the eleven students who experienced the lowest degree of TL.

Career learning themes showed up with less variation across the board for the students. 55% of high TL students and 50% of low TL students wrote about a new understanding of career planning. For a quarter of the high TL students, this included insights on their future educational path. Networking was also listed by more of the high TL students, and relates positively to the work culture and relationship themes presented above. The only career area more strongly identified by the low TL group was job fit, at 50% of low TL students. This job fit theme often relates to the lack of challenge and poorer professional learning experience findings presented above for these low TL students.

Professional conduct in the work environment was also a learning arena for students. 55% of high TL students and 38% of the low TL students described learning about electronic and oral communications skills. 55% of high TL students also learned about organizational and planning skills, whereas none of the low TL students did, as mentioned previously. The only area of professional conduct more strongly identified by

the low TL group was professionalism, at 63% of low TL students. Professionalism was characterized by a combination of image, people skills, responsible attitudes, ethical behaviors and performance, or lack thereof, generally as witnessed in their coworkers and supervisors. This also relates to the findings presented previously, that company culture and supervision were the most commonly reported themes of students who experienced the lowest degree of TL, and often their expectations were not met.

Emotions and learning context. Again, the positive or negative nature of the experience notably impacts the characterization of these content themes and provides greater clarity. The findings indicate that the more positive the context of the experience, the higher the likelihood is for a TL experience (Table 7). Overwhelmingly, the high TL students attached positive statements to aspects of their learning context (n = 35) and the low TL students attached negative statements to their experiences (n = 31). Examples of positive sentiments include words such as “happy, great, fun, grateful, satisfied, fulfilled, welcomed, motivated, dedicated, upbeat, proud, and optimistic.” Examples of negative sentiments include words such as “disappointed, unhappy, brutal, ignored, confused, stressful, tedious, doubt, anger, overwhelmed, and not satisfied.”

Work culture and relationships enveloped a clear majority of comments across both groups. The low TL students were impacted by negative contexts of company culture and relationships, particularly supervision and coworkers. One student wrote, “People didn’t seem to want to give me the time of day... I am leaving knowing they had a Porsche in the garage and they treated it like an old pair of roller skates.” Conversely, the high TL students benefited from positive associations to company culture, teamwork, leadership, coworkers, supervisors, and mentoring relationships. Professional and

personal learning also showed up in a more positive context for the high TL than for the low TL group.

Table 7

Comparative Emotional Influence on Learning Context Themes

Emotion	Theme	Comments			Respondents			
		High TL N = 38	Low TL N = 38	Total N=76	High TL N=11		Low TL N= 8	
					%		%	
Negative	Relationships		12	12			5	63%
	Culture	1	11	11	1	9%	5	63%
	Career	1	6	8	1	9%	3	38%
	Personal	1		1	1	9%		
	Professional Conduct		1	1			1	13%
	Professional Learning		1	1			1	13%
Negative Total		3	31	34	2	18%	6	75%
Positive	Culture	12		12	7	64%		
	Relationships	7	1	8	6	55%	1	13%
	Personal	6	3	9	6	55%	2	25%
	Professional Learning	6	1	7	6	55%	1	13%
	Professional Conduct	3	1	4	2	18%	1	13%
	Career	1	1	2	1	9%	1	13%
Positive Total		35	7	42	10	91%	3	38%

TL = transformational learning

Synthesis of Comparisons

In summary, comparative outcomes for students who experienced a high degree of TL versus a low degree of TL were explored in strength, in scope, and by contextual facilitators.

Students' self-reported rankings of the degree of transformation they experienced across eight TL variables were on average, nearly 2 points higher for high TL students than for low TL students on a 5-point Likert scale. High TL students ranked new behaviors and habits and increased confidence highest. For low TL students, new behaviors and habits were among the lowest. These students gave higher marks to self-

awareness and growth and new possibilities, although still considerably less than the average.

The scope of TL indicators involved was analyzed through a priori coding of qualitative data for five free survey responses. A clear majority of the high TL student respondents demonstrated multiple TL outcomes across seven variables, notably for assumptions challenged, new behaviors and habits, and self-growth. Conversely, less than 25% of the low TL student respondents revealed any demonstration of eight of the ten a priori TL outcomes. These students did reveal that their assumptions were challenged. The only indicator reported equally as high by both low TL and high TL students was increased self-awareness and growth, at three-quarters of both sets of respondents.

Greater context around the students' experiences provides deeper meaning and clarity for the characterization of TL outcomes. Two factors emerged as facilitators of differences between the groups of high TL and low TL students. First, the positive or negative nature of the experience notably impacted the likelihood for TL. Overwhelmingly, the high TL students attached positive statements to their experiences, and the low TL students attached negative statements to their experiences. Second, the learning context influenced the likelihood for TL. At least one area of personal learning was reported by 100% of the students. Professional learning exposure however, had the highest differential impact, followed by work culture and relationships. High TL students wrote significantly more about these aspects of their experiences, and in a more positive light. Career planning and professionalism themes were also broadly reported.

A summary of the comparisons is synthesized in Table 8 capturing the highest to the least amount of influence. The role of positive or negative emotions on the outcome or context is also displayed for the areas of most significant impact.

Table 8***Synthesis of High and Low Transformational Learning Comparisons***

TL Outcomes	High TL	Low TL	Tier of Influence	Learning Context	High TL	Low TL
Assumptions Challenged	+	-	1 st Highest	Personal Learning	+	
New Behaviors/ Habits		n/a		Professional Learning	+	-
Self-Growth	+	-		Work Culture & Relationships	+	-
Confidence			2 nd	Career Learning		-
Reframe Point of View				Professionalism		
New Possibilities						
Self-directed learning			3 rd			
Empowerment						
Holistic Integration						
Cultural Awareness						

TL = transformational learning

High Transformational Learning Characterization

Follow-up interviews with nine of the high TL students revealed the most meaningful highlights of their semester-long experiences. Facilitators and outcomes of TL were frequently woven together in their stories and will be reported as such. An emphasis of where they substantiate or deter from the key findings already presented will be discussed. A brief discussion of key facilitators, sources of support, or barriers to their success is also reported.

Highlights of students' most meaningful experiences were captured and categorized into seven main themes of professional learning, corporate assets, work culture, work relationships, personal growth, career learning, and professionalism (Table 9). Both facilitators and outcomes are reported. Professional learning, personal growth, and work culture were the most common themes reported. This pattern matches the overall strength of influence identified previously for comparative learning context in high and low TL students.

The top areas of sub-theme learning context mentioned across all students were gaining new professional skills (100%), making personal discoveries or realizing strengths (89%), the support of a positive work environment (78%), and gaining career direction and educational clarity (68%). For each theme, Table 9 also identifies the top two or three most significant a priori TL outcomes associated to the context. However, the strength of the data is often in the students' stories, which thread together multiple themes, sub-themes, and TL outcomes.

Professional learning, a meaningful theme cited by all students, demonstrates this impact of threaded inputs and outputs. Learning new skills and hands-on practice across the board made the work come alive. Students made comparisons of what they learned in the corporate environment that they couldn't learn inside of a classroom. In fact, several students brought workplace knowledge back to share with their classes throughout the semester. Even if the student worked on tedious tasks but was exposed to the latest industry trends or technology, or could see how it fit into a bigger picture, this helped to change their understanding from mere textbook knowledge. It was motivational to see the connections. Often the students also learned new things about their skills and abilities, or they grew in relationship to their new work environment. This combination frequently enabled a better sense of career direction and educational clarity, which then continued to feed their motivation and understanding of self.

Table 9

Themes and Transformational Learning Outcomes for High Transformational Learning Students

Theme	Top Associated TL Outcomes	Sub-theme	N=9	%
Professional Learning	Confidence, Self-growth, New habits Point of view, New possibilities Self-growth, SDL, Empowerment Point of view, New Possibilities	New Skills Practice *	9	*100%
		New Professional Knowledge	4	44%
		Challenge and Achievement	4	44%
		Interesting Projects	2	22%
Personal Growth	Self-growth, Holistic, Empowerment New habits, Point of view, Holistic New habits, SDL, Holistic Self-growth, Identity, Empowerment	Personal Discovery/ Strengths *	8	*89%
		Juggling Life	5	56%
		Goal-Oriented	3	33%
		Personality Shift	2	22%
Work Culture	Assumptions, Point of view, New possibilities Point of view, Self-growth Self-Growth, SDL, New possibilities Point of view, New possibilities	Positive Work Environment *	7	*78%
		Leadership/ Management Styles	5	56%
		Teamwork	4	44%
		Company Values	3	33%
Career Learning	Confidence, New Possibilities, SDL Confidence, Holistic, New possibilities New habits, Point of view, Self-growth Confidence, Epistemology Cultural Awareness, Point of View	Career Direction *	6	*67%
		Educational Clarity *	6	*67%
		Networking	4	44%
		Career Planning/ Job Search	3	33%
		American Work Culture	1	11%
Work Relationships	Confidence, Self-growth, Epistemology Confidence, Empowerment Confidence, Self-growth, New possibilities Point of view, New possibilities	Coworker Support	5	56%
		Recognition	5	56%
		Mentoring	4	44%
		Friendships Beyond	4	44%
Professionalism	New habits, Confidence, SDL New habits, Confidence, Self-growth Self-growth, Point of view, Epistemology Point of view, Cultural Awareness	Productivity	4	44%
		Communication	3	33%
		People Skills	3	33%
		Ethics	2	22%
Corporate Assets	Cultural Awareness, New possibilities Point of view, SDL, Self-growth Assumptions, Empowerment Point of view, Empowerment	National/ Global Exposure	3	33%
		Corporate Training Resources	3	33%
		Executive Exposure	2	22%
		External Connections & Exposure	2	22%

*Highest Reported Sub-themes; TL = transformational learning; SDL = self-directed learning

One student's story illustrates the connections between all four top sub-themes, professional learning, personal discoveries, a supportive work environment, and career and educational clarity:

It was surprising because I didn't know how much I knew until I really actually started doing stuff for real, not in a lab where you can make mistakes and just erase and start again. It was the real deal. It was the real thing, so getting the tasks done was good. That's when I felt that I was successful, that I was able to finish my tasks.

In class you go to the book or you ask the teacher or the professor how to do this, how to do that, and they help you out. You don't have to have that much confidence in what you're doing because if you mess up, then you reset the router and do it again. Here, I was like, Okay, if I mess this up, I'll probably mess up their whole system. But I found out that I won't be the only one working behind the scene. It would be a team working on the whole thing. Everybody is going to help everybody. So right here I was relying on my teacher. Or I could go online and ask my friend Google.

It made me feel that I wasn't wasting my time here, that I was actually learning something. That I was getting what I was looking for, getting my Associate's degree, and that I was actually accomplishing something.

This student also grew in confidence and being more self-directed, two of the top TL outcomes associated with professional learning.

Common TL outcomes associated with the professional learning sphere for all high TL students interviewed were a shift in point of view, self-growth and new possibilities focused around career and educational clarity. The correlation of these TL outcomes is further explored next.

Significant High Transformational Learning Outcomes

There are multiple pathways to transformation which individually map across various TL indicator threads of evolution. However several significant themes emerge, as captured from the stories of the students' most meaningful experiences. Table 10 presents an aggregate view of the most common areas of resonance. This table summarizes the

frequency of all thirteen a priori TL indicators associated as any of the top outcomes for a sub-theme in the students' stories (referenced in Table 9).

Table 10

Frequency of Top Associated Transformational Learning Outcomes in High Transformational Learning Students

Top Associated TL Outcomes	Frequency Associated
Self-Growth ¹	12
Reframe Point of View ²	10
New Possibilities ²	10
Confidence ²	9
Empowerment	7
New Behaviors/ Habits ¹	6
Self-directed learning ²	5
Holistic Integration	4
New Epistemology	3
Cultural Awareness	3
Assumptions Challenged ¹	2
New Identity Role	1
Recognized Change	N/A

¹Highest Tier of influence in comparative high and low TL synthesis' ²Second Tier of influence in comparative high and low TL synthesis; TL = transformational learning

The top TL outcomes of significance identified are self-growth, reframed point of view, and new possibilities. This pattern also matches the overall pattern of influence seen in the synthesis of comparative high and low TL outcomes previously. As indicated in the footnote to Table 10, challenged assumptions was previously situated higher and reframed point of view lower, but combined there is consistency as a change in point of view is often an output of a change in assumptions.

Interestingly, new possibilities emerged in third place, which is backed up by the fact that the students ranked this second highest on their survey responses. Even more interestingly, several themes of TL outcomes appeared in the interview data which did not pop up in the earlier analyses. More time will be given to explore these new findings

here, rather than continue the validation of those previously summarized. Among these new findings, empowerment and new possibilities have the most strength. Although less common, support for holistic integration of learning, new epistemologies, cultural awareness, or new identity will also be presented as they represent a deeper view of meaningful change experienced by the student.

Self-growth. Thrown into a new professional work environment, students had ample opportunities to learn about their skills, strengths, work styles and preferences. Several students became aware that they were “quick learners.” Others learned that they were “adaptable,” “detail-oriented,” “good with deadlines,” or “organized.” Students became more communicative and confident in their abilities to communicate professionally. Even so, the demands of their work environment also left room to “continually improve” or grow. Several students noted that they were sensitive to their work environments, and on the whole much preferred the combined sense of team-orientation and individual responsibility which it fostered. Personal self-growth often became a pathway to empowerment and even a new identity role, which will be discussed further later.

Frame of reference. Students’ expectations and assumptions of the corporate world, or what it meant to be a working professional, or their prospective career outlooks shifted significantly over the course of their semester-long work placement experience. For several, their only view of an office job was what they had seen or imagined from TV. They were pleasantly surprised to find out their company’s office culture was more “laid-back.” Students couldn’t believe how “down to earth,” “respectful,” not “pompous” and accessible many powerful and accomplished senior leaders were. Moreover, most students came in expecting just to learn a job, and did not realize how valuable coworker

relationships would become to them on the job and into their futures. Several students valued these connections for their career mentoring, and four spoke to a shift in coming to value work relationships for friendships that could extend beyond the workplace.

Students were also impacted by their company cultures and values. Many were “amazed” at how these corporations really cared about their employees and offered support for professional development or simply challenging times through flexibility or additional financial assistance. Three students also were significantly impressed with their company’s commitment to community needs dear to their hearts, specifically education and veterans. As a combination of the above factors, a majority of students also reframed their perspective on what they would value in future employers and the career planning/ job search process itself.

Empowerment. Empowerment was a strong TL outcome which tended to run along two main pathways. One pathway encompassed professional learning and the empowerment of seeing a new career outlook. A second pathway focused more on self-empowerment and holistic integration. Broadly speaking, students drew new motivation or enlightenment out of their experiences and developed new behaviors and habits, which shifted their sense of self-authorship on their world. Multiple TL indicators are involved in the threaded connections, most importantly self-awareness and growth, new epistemologies, self-directed learning, increased confidence, and new points of view.

The first pathway to empowerment drew from exposure to new professional learning opportunities. Students embraced greater confidence, higher vision, new identity roles, energized dreams, and inspiration to act on this. They learned new habits for success on the job including technical skills, prioritization and organizational skills, and communications skills, and became more confident. Overall, students reported that they

were “confident,” “professional,” and “more knowledgeable and competitive,” which opened up a fresh vision of better career possibilities for their future. One student was so proud of her new skills and ability to fit into the work culture that she beamed about her new professional identity, “Professional. It’s my favorite word, yes.” It became ingrained so that “you’re polite everywhere, even in the Starbucks.” Students were ready to assert a new power on their career futures. Two students articulated that they would not “settle for less.” One student who decided to add a second major says of his new vision:

I’ve definitely become more goal oriented I would say, and I have a clear vision of what I want to do. For instance, I know that my next position I’m not going to accept any other position except something in my career field, just because I’m really focused and know that’s exactly where I want to head. I’m done trying to find jobs just to pay the bills.

I planned out the rest of my study in school which I hadn’t done before. I didn’t really see where my studies were going to end. So I really got organized. Now I have a clear vision inside, which I’m working towards. The perspective is clearer. I can see outside of what I have to do to reach the goal that I have in mind. So, I would say I’ve got more of a bird’s eye perspective.

Professional learning through exposure to executives and accomplished professionals inside and out of the company also made a significant impact on these students. They recognized that they were encountering circles of excellence, power, and influence that they had not been exposed to before. They overcame their intimidation and responded to the examples of success in front of them. Five students could see a vision of themselves in their future dream job, through the example of a manager or coworker. They felt closer to this dream and empowered, knowing that they were performing well and that they were growing as professionals alongside role models. One student realized his ultimate aspiration was actually to be an entrepreneur, and treasured his time to hobnob with “self-built people.” He and another student both described feeling a “higher energy” just being around such powerful and successful role models.

The second pathway focused on self-empowerment with a holistic integration of learning that encompassed a professional and personal sense of self. Facing uncertainties, personal anxieties, or challenges of professional standards propelled students to rise to the challenge and forge a new sense of self-authorship. Several students had to tackle the ambiguous unknown, and developed a new epistemology of how they would not only face these situations, but learn in new ways to be successful. One student talks of his corporate immersion experience this way:

When I first came here, I thought I'm in a different land, different culture, different language and everything, I didn't know what to expect. Now I know what to expect, so I don't feel afraid anymore.

Now I'm going to have more confidence going through the whole process from the interview, if I get the job, and when I start working. I will have more confidence dealing with whatever the situation is. Now I know that I can do whatever the tasks they're giving me because I know that I can somehow figure it out. Somehow I can accomplish the task on my own, asking somebody, help from my manager.

I've learned to believe in myself. Don't be afraid, that I know I can do it, that I can expect the unexpected. I can just go in there and [they can] just throw things at me. It's a big, big change. Like I said, I had no idea what to expect. But now, I don't care. Just bring it on. What's the worst that can happen? Fire me, that's okay. I'll go somewhere else. Do you know what I mean? That's how life is.

This new approach opened him up to have a more positive and productive attitude towards everything in his life:

I'm getting a better attitude at everything. I don't worry too much about small things like I used to do before. I don't get anxious anymore like, I have to do this, I have to do that. So it has changed a lot. Now I'm more organized and manage my time better. Now I have time for everything. It's weird, but I have time for everything. Not only in that job, but in my personal life. Well, I had two jobs, I had school, my son, church, and some other stuff. I have more time, more knowledge. I trust myself more. There are a few people that rely on me, not only my son but a few friends. I like that feeling. I know I'm helping somebody and doing something for somebody. I'm happier than before. I'm not afraid as I was before.

Three additional students expressed similar thoughts of growing to believe in themselves, accomplish more with their time, and an overall more positive outlook on life. One student, intrepid at first, describes:

Relief because I didn't think I could do it [this internship] at first. And so, I'm confident. I'm looking at doing things I don't normally do. And just in general, I feel a lot better than I was because when I dropped out of college, I was really -- I don't want to say depressed, but I was really sad like "What am I going to do?" I didn't think that this would happen to me.

Now I feel confident, self-reliant. I'm happy basically. I don't really know how to characterize it in a few words. I didn't really consider that until you asked the question. I didn't know I was. I was just thinking, "I'm in an internship. I'm happy." I just got it away from the question I guess, so thanks.

Experiencing success in the workplace opened up a sense of empowerment throughout his life.

Cultural awareness. Cultural awareness emerged in one-third of the high TL students interviewed. For one student, her professional learning was enhanced with work projects with Europe and South America, as she learned different business protocols, legalities, and cultural work preferences in international hemispheres. For two students, it paralleled a form of empowerment in better understanding American work culture, as compared to their home country backgrounds. First, company diversity training and values made a huge impression on students and highlighted areas of cultural differences.

I didn't expect this level of fairness, like this level of respect, seriously. Like all immigrants, we go places and people feel like we are taking over American jobs or whatever. But [here at this company] it's only based on the work, nothing else.

It also showed me that sometimes I also have to improve my way. It's also like a cultural thing. In Latin cultures, you can shout and no one cares, but here, you can't really shout. Be careful about what you say. So the culture is different. The culture is more important here. Way more important here, but it's good.

Teamwork and a positive work environment were other strong inputs. Why were their American coworkers so welcoming and smiling, so positive about work? This

“family” orientation impressed them, although one learned he preferred a more aggressive management style and work environment. Another learned more about the value of a positive work environment:

They really try to get a nice personality image before they put someone within the system. Here, it's very important. That's why businesses here are doing much better than anywhere else in the world. Well, first, they want to make sure that you are skilled enough for the task, but they also want to make sure that you can have a conversation. It's important that you can be part of the team.

Discovery of deeper American work culture values was impactful. Even though it was not his first job in the U.S., one student shared multiple ways in which he felt empowered, including trust, creative possibilities, rewards, and differentiating broader international sociopolitical powers and cultural values:

Yeah. It blew my mind. I mean, when I talk to people in Europe, they just couldn't believe it. They can't believe that we have free drinks and free food at work. For them, it doesn't make any sense because there is no trust. People who are working within the corporation, they don't trust them. Well, the value of this is you're going to be trusted; therefore, you work. It's going to be better. It's simple. I'm sure of this. I love this. Who wouldn't?

I think it's social polarization that we get here. For a lot of people, it's tough. But there are more opportunities here than in Europe, so it kind of balances. I think it's for a lot of immigrants -- for me, I'd rather be in this system than be in the social democrat system, the minority of technocrats holding up all the powers, all the money, giving away the minimum welfare to people, so the welfare is better in Europe for sure, but you won't be able to go anywhere and to do anything. You can't have two jobs in Europe anymore. You can't have two jobs.

He also spoke of educational and mid-career change opportunities, and how valuable an understanding of corporate culture norms would be for career prospects:

My vision of society is here. Yeah, it's tougher. We could make it better. We could invest more, but I think it's still a better system than the European system. Because it allows for creativity.

It's also a matter of having more power, having a better role in society, too. It's huge, like sky's the limit here. What I'm doing now would be impossible in Europe. I'm 45 years old. First, community colleges don't exist, number one, so they wouldn't take me in school. It would be literally impossible to do that. You can't be qualified. Once you're out, you're out. You're wasted. Two, I would be

discriminated because of my age because I'm too old. The younger people will have priority over me.

It's one of the best experiences I've ever had. Because for the first time, I was put within a US corporation environment. That's the deal. This is how it works. This is the format. I think if I had this when I was 24 and it was my first job experience, it would've felt great seriously, and I'm sure that's what happened in most of the kids here. But it still feels great at 45. One of the best experiences seriously. You get a concrete idea of the culture, of the work culture. It's huge, the work culture within a system, within the societal system. You can't really fake this and you can study this in school, but you won't feel it until you see the real thing. I don't know if that makes sense, but for me, it was very, very important.

New possibilities. All of the high TL students interviewed spoke of seeing new possibilities as a result of their semester-long internship experience. New possibilities took two main pathways, similar to empowerment. The first pathway involved professional learning and career possibilities, and the second pathway focused on a holistic integration of seeing more possibilities for oneself personally.

Students envisioned new professional and career possibilities for themselves in various ways, including career direction, educational clarity, and new understanding of career planning and preferred work environments. Armed with new professional knowledge, understanding of competitive skills, and hot industry trends, two-thirds of the students discovered related career niche options for them to pursue in the future. These same students also honed in with greater educational clarity on courses or majors they could add to achieve these goals. Moreover, two students realized through conversations with colleagues on the job, that an educational degree isn't a guaranteed ticket to a particular profession. One expressed relief and comfort that certain limits they had placed on themselves were in a sense removed. Two students strongly expressed more curiosity. One who began in intimidation of challenges discovered he actually liked these new possibilities:

I'm imagining all the possibilities right now. Working for a very, very good company, doing an excellent job. Now, I can picture that. Before, I was just afraid not to mess up things. But now, I know I can do it. I want more challenges.

New relationships also opened up a new category of possibilities for students.

These relationships presented new possibilities for career and professional mentors, as well as opening up opportunities for direct or indirect networking. Three students spoke of competitive career knowledge they gained just by having conversations with coworkers about previous companies and positions for which they had worked.

Professional mentors in new career areas also opened up potential visions of success for these students.

The second pathway encompassed a holistic integration of seeing more possibilities for oneself as a result of their internship experience. Students grew in adopting habits and attitudes of professionalism on the job, and it was reflected in their overall personal outlook. The same student above continues:

It was a big change for me. I learned a lot and not just work-related, but in my life as a person. Yeah, the experience can be a variety of different ways, in a lot of different ways. I accomplished one of the things that I wanted to do, but that's just the beginning of what I want to do. Of more possibilities.

The limitations of a dead-end job and life were removed for another student:

I've learned there's more than just day in and day out you go to school, come home, go to school, come home, do that for like 12 years, then go to college. Your job can be enjoyable. At least it can be not detrimental to you. You don't have to be stressed out. When you have a job in your school, even if it does take most of your time, you value everything more, the job, the school, the downtime, the weekends, stuff like that. And so, you're more productive. So now, I value time even to do stuff on my own. I'm more productive basically. I'm more active.

My shift is from doing nothing or wanting to do nothing to finding something to do. I learned that it's not just something you have to do mandated by you have to go to school or you have to get a good job. The reason probably is because it's probably good to have it. I mean, not just so you're financially secure, but it could be fun. It could be enjoyable.

The corporate immersion experience rubbed off on several students and allowed them to glean personally in different ways. Three students described new impressions of leadership and management styles and how they would apply these philosophies, strategies, or communications tips to other roles of management in their life, present or future. Some discovered new possibilities in having friendships with coworkers outside of the office. Invitations to corporate functions, fundraisers, or dinner outings opened students' eyes to new business opportunities and networking aspects that they liked. One student described his hunger for new types of relationships this way:

Also, I think I've changed. It's not like I'm a snob or whatever or I'm a better guy than you, but I will no longer make friends with people who I don't think I would learn from. To me, it's a complete waste. I didn't care [before]. But now, probably after having that experience with people who can actually teach me, who are smarter than I am, I can learn from them.

New identity. Although many students felt empowered or saw new possibilities for themselves at the conclusion of their internship experience, one student particularly experienced a significant personality shift to a new identity role. He explored developmental identity issues of safety, fear, choices, curiosity, connecting with others, and taking responsibility for his behaviors and actions. He describes overcoming significant shyness and learning to trust in his coworkers and supervisor:

It definitely made me more outgoing even though I'm very, very shy. I noticed I'm quite shy and I wanted to push on myself to get out of that comfort zone.

I feel more like my spirit has been lifted. Like being shy is kind of like in a corner, locked in a corner somewhere that I can't help. I'm more being assertive, more like a tiger. There's something different that is not that guy in the corner hiding.

He also learned to value having fun and appreciating people in the workplace:

I have to say that this is a positive experience. I definitely gained a lot of experience there, became completely different having two personas. One, I have to do a job and one just be goofy and have a good time. Have a good time while

you are working, while you are at work or doing anything, just be happy. And don't worry about any consequences.

It's shown me to become something more. It has made me become someone who wants to learn all things. Now really look at different perspectives and try to make me more friends. Explore more and approach things without any fear.

I have definitely changed for the better. I feel more confident in approaching people now, asking questions. I don't feel intimidated by my supervisors anymore or any other people. I feel more free now. I was kind of like trapped in some way, but after feeling more confident, I feel more free.

He concluded by adding his interests in exploring all sorts of sciences, arts, hobbies, and college clubs with his new sense of life.

Significant High Transformational Learning Facilitators

The findings indicate that four key facilitators broadly influenced a high degree of TL in a work placement context. These key facilitators were challenge, recognition, teamwork, and corporate assets.

Challenge. Challenges presented in work and personal contexts. In a work context, students had to learn and master new software programs, develop communications and project management skills, meet deadlines, improve accuracy and detail-orientation, or develop creative solutions. They had to respond to standards of workplace evaluation that are different than test-taking and writing papers. Three students specifically surprised themselves in meeting a challenging project, and developed a new epistemological confidence in their ability to be self-directed in their learning and produce great results. From one student's perspective:

When I initially started I didn't think I was really doing much. I was trying but I wasn't really sure if what I was doing was actually right. And then I worked really hard one day [to meet a deadline]. I really pushed myself and I got them all done. I hoped they were right, you know. Then a couple of hours later I brought it over to the desk of the writer who hands down the projects and he came over and he shook my hand. He said I did an awesome job, it was perfect. I was just really surprised, I thought he was going to come up to me and tell me to fix something.

He just shook my hand, and he said good job. It felt great. I was like I guess I can do this.

Yeah, rising to the challenge. And more honest with myself. Having had this experience where I actually did it, I am pretty confident in knowing what I can and cannot do now. I have a clearer understanding and that's something else I learned about myself. I have a clearer vision of what my abilities are. There is almost really nothing that you can't do. It's just why can't you do it yet?

In a personal context, several students learned to overcome fears and weaknesses such as lack of confidence or shyness already described. Practical aspects of juggling life and time management were also very real challenges, and several students surprised themselves that they were able to manage to “do it all” with less and with better results. Other students responded to the challenge of the high bar set before them, one describing a ‘Bill Gates [CEO renamed] standard’ that became a colloquial part of his conversations to push himself even more for holistic self-growth and betterment.

Recognition. The power of recognition alone for a student is also transforming. This external support encouraged their performance, confidence, self-growth, and empowerment for new career possibilities. Feedback from coworkers or supervisors on performance or just simply taking time out of their busy schedules was a powerful confidence booster and career directional. One student expressed:

It's nice when you have people make good comments about you because you're doing things right. When he came to me and he said, ‘Wow! I'm impressed. You updated the site and made it work. I mean, nobody told you anything about it. Well, your school has done a great job.’ It makes you feel good. Your confidence goes way up. Most of the time, I was doing things right. It was just a couple of things that I had to fix. But most of the time, it's good feedback. That personally makes me feel like I can take the world in my hands now. I know how to do this, so just bring it on! I'll take whatever! It's that kind of impact.

Another student, when asked what moment of learning stood out for him expressed two examples of recognition. The first, receiving accolades, instilled pride and

encouraged him to want to perform better. However, when his superiors took note of his suggestions for improvement, his sense of empowerment really shot up:

The officer and then the vice president took me in a meeting and were talking about the job, what I was doing overall. They told me what great words they heard about me from my trainer and they congratulated me. Obviously I felt pride in myself which was really great and made me perform better on the job that I was doing. Then the second thing from the other day, I got pulled out from my supervisor and we talked about what suggestions did I have regarding the job. When I gave him my suggestions about what I was doing in order to be more efficient on the job, he really liked it and after all, he gave a big ‘wow, that’s great. I have never heard this.’ And it was good, so that was very helpful. As I said I feel very lucky being in such an environment with those people.

It’s just fantastic because when you feel support from your family you definitely expect that one because they are your family. But when you feel supported and when you get something recognized for what you have done, especially from this type of people, I mean you have that excitement on you. It makes your day because these persons, they are not just like your friends or someone who can give you a compliment on things that you do. But this is the actual thing that you are going to face on your career, on your real career when you get done from school and so on. So it really matters.

For one student, the overwhelming complimentary recognition of her senior executive team over lunch improved her confidence in making a career shift:

When I saw that they said my work product was excellent it was like, “Okay maybe I am in the right field maybe, making this huge change was the right thing for me”. It wasn’t can I do this, because I’m a quick learner, I can pretty much figure it out. It was “Is this the right choice for me? Is it the right thing to go from substance use to legal?”

Their belief in her abilities to excel bolstered her aspirations to combine her two career interests and to believe that her dreams of impacting the social system through legal advocacy could accomplish more than just reaching individuals through counseling.

Teamwork. A culture of teamwork and open leadership styles significantly impacted two-thirds of the high TL students interviewed. A culture of teamwork supported self-growth, professional learning, and a holistic reframing of career possibilities. Students learned more about themselves through interactions with

coworkers, such as that they were “good with people.” Two students noted that work could be more fun, and four students indicated that a positive team environment was a ‘must’ they needed to have in their next career opportunity.

For professional learning, the notion of group success topped the list. One student communicated:

You're going to be a part of the team. If you have a problem, you can rely on your team. If you have too much work, send an email and say, "Hey, who's going to help me out?" And you're going to have people say, "Okay, fine. What do you need? I can do that for you." I felt that was so strong. That's one of the strongest things -- I should've mentioned that, the team effort. Damn, it feels good! You feel strong. I've never seen that before. You're part of the team, so it's either everybody is going to collapse or everybody is going to make it. That's strong.

It's valuable because it shows you that if you're a team player instead of playing it personally, first you're going to be more empowered. You're going to have more power within your work. You're going to feel more confident. You would be able to share.

Empowerment and learning came not just through sharing professional work projects, but in taking time for teambuilding as an office or departments. Another student's perspective shifted on the value of inclusivity, and recognizing group results compared to individual results:

There's more personal attachment to it, like you want to make sure people are interested in common success, in united success, so you need to make sure they personally will also benefit from the success. Bonding is important.

He believed this was such a value-add for employee support, that he carried over this perspective shift in speaking of future career change aspirations to move into finance. It wouldn't be the most important indicator of a company's financial health, but strong investments in teambuilding and leadership development company-wide certainly would be a new factor of consideration in evaluating companies.

One student's experience with teamwork personally transformed his approach to career and life:

Every morning, they have a meeting and people have to actually tell them what's going on with the project, what is holding up certain projects, what they have done, what they have accomplished. I didn't have that before. I sit in and just listen to everybody's comments and the creative side of them. "Oh, maybe we can implement this," "We can do that," "We can change this," and how they work together as a team.

That's one thing that impressed me. Working on a project is not about what you know, but what you can uphold to the team. In hotels and restaurant business, you work as a team but you work for your money, so sometimes you don't really care about the other people. It's not like a real teamwork kind of thing. I mean, at least my experience here, was that everybody really cared.

Because of my experience, seeing people working together, the way they work together, it's something that I will bring to wherever the workplace I'm going to be working at. Well, I don't know if it's going to be different at that job, but at least that's the way I'm going to be acting even if the people don't act like that. Maybe I can change their minds. I think I will be a great addition to the team because I know how to work that way.

Unfortunately, I had a very bad experience with some team members in some jobs that I had before, so this was my mentality: I'm going to help him, but I'm here to work for my money, so I don't really care about the other person because when you work with these kind of people and you ask for a favor, "Can you help me with this?" and they say, "No" It's like, okay, I'm never going to help anybody ever again.

But going to [this company] and having the opportunity to experience that teamwork, now even if you say "no", okay, that's fine. If you don't want to help me, that's okay. But if you ask me for help, I'll do it. So it changed my mentality like what my personality is going to be. I want to help people even if they don't care, whatever the case might be, whatever they think about it. I will just help. If we have to get something done, it's about what we have to get done. It's not about your personal life. It's not about just you. It's about what we have together. I don't care about who I have to work with, but that we can work towards that goal. That's kind of my mentality.

Corporate assets. A trademark of this program was the corporate nature of the student work experience placements. Not all students had the same level of corporate exposure, but for almost all, it made a difference. Corporate assets identified by students included national or international exposure, a wealth of internal company and

professional development trainings, exposure to senior leaders, and external connections.

Sometimes it was simply the ‘wow’ factor:

I was able to go on one of the biggest networks in the world. It was my first computer network experience. It's huge. It gives you an aura. Just like the UN thing [my previous job for 12 years]. It means something to people.

Two-thirds of the students interviewed directly identified the sophistication and quality of professional learning as influential, including six sigma trainings, vast company intranet resources, the emphasis on ‘continuous business improvement’ and nearly seeking perfection. A majority of students could not believe the degree of professional training they had to go through on ethics, diversity and compliance procedures, and also the amount of professional development training offered online where they could continue their ‘education’ for free. Interesting projects were also a factor. One paralegal student could not describe the details of her case but compared it to a John Grisham style “soap-opera.” For other students it was the connection of being up close and personal to professional examples of success, which impacted career clarity and empowerment as previously discussed.

Corporate assets and company values also significantly played into students’ assumptions coming in, and a resulting change in their frame of reference regarding corporate culture or future career possibilities. For these high TL students, the vast majority expressed a new understanding of why their fellow colleagues were so invested in their work, and they connected this to the significant investments they saw employers undertaking in their employees. Company rewards were noted in a more positive, caring, productive, and helpful light than previously surmised. These corporations were no longer viewed as outside entities, but as real pathways that could offer more possibilities, flexibility and benefits for their futures.

Barriers. Possible barriers for these students begin with an understanding of the challenges in their personal backgrounds. Two students had already tried and dropped out of another college. All students were taking between three and five classes. Six of the nine students kept jobs outside of their internship experience. Four of these students were working a combined total of 60 hours weekly between their jobs and internship site; one was a single mom, one was a single dad, and one was a recent immigrant supporting his parents. Two of the students were married. These nine students ranged in age from 21 to 45. Students collectively cited time, money, experience, and education as barriers or hurdles for achieving their dreams for professional success.

When asked about challenges faced during their semester-long work placement experience, eight of the nine students topped their list with struggling to maintain a work/school/ life balance. Learning to communicate professionally and adapt to workplace norms was the challenge cited next, particularly how to ask appropriate questions or follow-up with coworkers to get results without being a pest. Mediocre on-the-job training was also cited by four finance and design students who needed to learn specialized, industry-proprietary guidelines and software programs.

Sources of support. All students listed a combination of supportive coworkers, supervisors and mentors on the worksite as their top source of support. A culture of teamwork also made a significant impact. Many students said they felt supported “everyday” and were motivated by a coworker “taking his time aside just to help me.” They felt inspired to “be with really great people, with professional people who can teach me how to properly work in such an environment” and were proud to come out a “better person.” Sources of support are seen more clearly against the backdrop of barriers and students’ most meaningful transformational experiences. Their role in nurturing the

professional, personal, and career development of students was a powerful success factor and often unexpected. Students' expectations and assumptions regarding hierarchy and circles of prestige were challenged. Students gained confidence in their abilities, learned more about themselves and developed new professional habits, and reframed their points of view.

In some cases, coworkers would help mitigate some of the day-to-day management and needs of the student:

Yeah. It's more like there's an actual support system. It doesn't feel like an isolating cubicle. If you're isolated, you don't know the people around you even though they're like three feet in front of you, so you're hesitant to ask. You certainly don't want to go to the higher up like your manager or something and just ask him when he has five other people and that just delays time. You don't get things solved. You're behind on your work. On top of that, what they hired you to do, you don't know. So when you have other people there to help you, it's actually pretty great.

In other cases supervisors took a lead role and actively helped to role play training sessions or address performance issues:

My supervisor gave me pointers and said that I need to be more aggressive. She said to me, "Don't think just do it, just feel confident and just do it." I guess it just propped me up and gave me the motivation. She really wanted me to get rid of that shyness. It definitely transformed me into something better.

Supportive mentors were also highlighted for their significant role in professional learning and development. Sharing knowledge, communications tips, and career mentoring were all appreciated. One student writes of her professional learning:

The senior litigation attorney every week took time out of her very busy schedule to meet with me. To talk to me and explain things and to see if there were any questions I had, to show me an aspect of the law I didn't or couldn't learn here. So I think the amazing people that were there, the things that they taught me were so valuable. I learned so much about federal rules of civil procedure and about business here. There is nothing like hands-on.

Career mentoring was also cited by four students. Three of these students described a longer-term view of these relationships, knowing that they could continue to call on their mentors for advice and references. Beyond individual support, a culture of teamwork and open leadership styles was part of the support structure that also significantly impacted two-thirds of the high TL students interviewed, as previously discussed.

Outside of the worksite, one-third of students also recognized sources of support from the classroom and interactions with their professors and peers on issues related to professionalism and success in the workplace. Two students also acknowledged their personal support systems, grateful for the sounding board of a supportive partner through the semester-long journey, or the practical help in raising a child as a single parent.

All of these sources of support enhanced the students' learning experience. Overall, these high TL students could be characterized as more inspired, grateful, confident, and hopeful. They did experience real challenges and barriers cited previously of time, money, education, experience, professional communications and training. However, these students emerged from their semester-long immersion experience not just overcoming challenges, but genuinely renewed.

Synthesis of High Transformational Learning Outcomes

The most common TL outcomes of significance identified in the high TL students interviewed were self-growth, reframed point of view, and new possibilities, the top two of which exactly match the highest pattern of influence seen in the synthesis of comparative high and low TL outcomes previously. However, the most significant themes emerge from the stories of the students' most meaningful experiences. These high TL students interviewed broadly demonstrated a strong sense of renewal and higher

vision by the conclusion of their semester-long work placement experience. New possibilities and empowerment emerged as two stronger results for characterizing high TL outcomes of significance in the interview data.

The results also indicate that there are multiple pathways to TL for students, and that these pathways display a spectrum of TL outcomes. Eleven of the twelve a priori TL outcomes identified in the literature were found to characterize the findings for these high TL students. There was insufficient data to support any findings for the last indicator, a recognized change by others, although a few students in their own words spoke about what a big change they felt in themselves. Professional learning, personal learning, and career learning provided the three main contextual spheres of learning for the students. Figure 1 represents a visual analysis of pathways of significance for these high TL students, and depicts how these spheres connect in relationship to support TL outcomes in four main scenarios of TL.

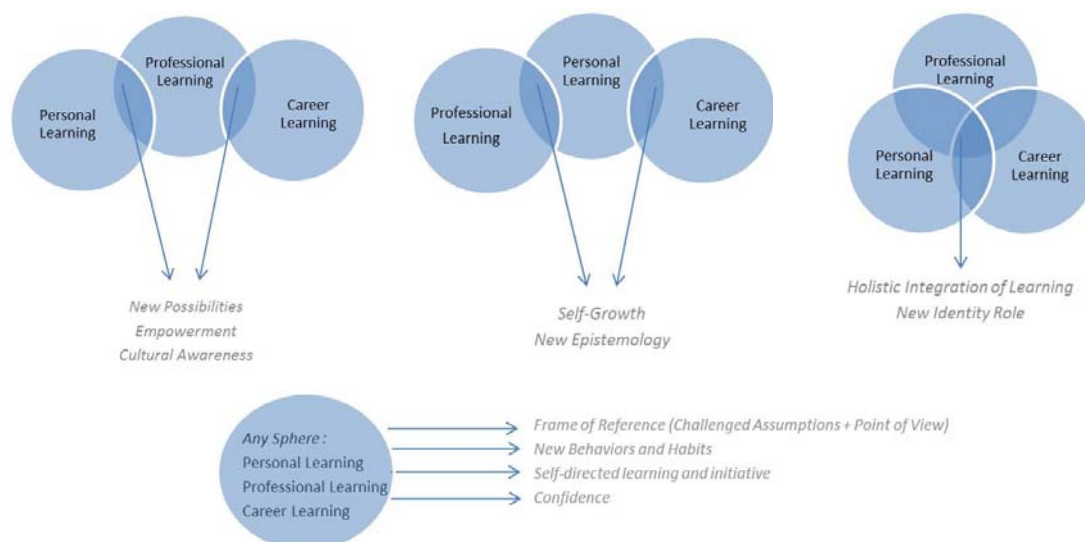


Figure 1: Pathways of Influence for High Transformational Learning Outcomes

New possibilities, empowerment, and cultural awareness were most commonly found in the first scenario, where professional learning intersected with personal or career learning. Self-growth or a new epistemology were TL outcomes most commonly found in the second scenario, where personal learning intersected with professional or career learning. The high TL outcomes of a student's holistic integration of learning or a new identity role tended to come through the intersection of all three spheres of learning depicted in the third scenario. In the bottom scenario, any sphere of learning as a standalone context or in combination with other spheres produced a change in the remaining four TL outcomes of a frame of reference (inclusive of challenged assumptions and a point of view), new behaviors and habits, self-directed learning and initiative, or increased confidence.

A pattern in the data is that some of the deeper TL findings reported such as cultural awareness, new identity, new epistemology, or holistic integration of learning tended to be found in the aggregate of at least two spheres of contextual influence. In particular, the new TL findings of empowerment and new possibilities were reported as significant TL outcomes where students were able to connect their professional learning with career or personal learning. A holistic integration of all three spheres was less frequently found in the data. However, the most common TL outcomes of self-growth, frame of reference, and confidence were found to be spread out across all three other scenarios.

Conditions that Impact Transformational Learning

The second research question explored personal, program, and worksite conditions to analyze the effects on student TL. Some aspects of the personal and worksite conditions have already been explored in the integration of high TL outcomes

and facilitators, such as the role of emotions, contextual learning spheres, barriers, and personal sources of support. This section will supplement those findings with a broader analysis across all students, whether they experienced a high, medium, or low degree of transformation. Survey data collected on all thirty-five participants was analyzed across a set of twelve personal demographics, as well as three broad program components identified through a series of survey questions consisting of the overall learning experience, worksite factors, and program support from the college.

Impact of personal variables. Demographic data was tested for any meaningful difference in findings by factors of gender, company, internship function, age group, ethnicity, highest level of education previously obtained, years lived in this country, cumulative years of prior work experience, years of relevant work experience in their internship field, semester of completion in college, and whether or not they were a recipient of financial aid.

Diversity was well-represented across the 35 students who completed the survey. All seven companies and nine internship functions were represented. From under 21 to over 45, multiple students represented each age bracket of 5-year increments. Student participants were 71% diverse across Asian, latino, black or African American or unknown ethnicities. Prior level of education obtained included a majority of GED and high school, but also several college certificates, associates degrees, and a few bachelors degrees. Nearly half of the participants had lived in the U.S. less than five years, while one-third had lived here for over twenty years, and about one-fifth landed in between. 90% of students had prior work experience, and nearly one-third had some type of experience related to their profession of study. One-third of students had worked for less than five years, one-third of students had worked between 6-10 years, and one-third of

students had worked between 10-20 years. A majority of students were in their 3rd, 4th, or 5th semester, but 25% of students were in their 2nd, 6th, or 7th semester depending on part-time status or attendance in summer sessions. Finally, 51% of students were on financial aid.

An ANOVA test was performed to test if any of these variables were significant in characterizing the degree of TL reported among students. Of the twelve personal variables, only Financial Aid is significant at the $p=.05$ level. Students receiving financial aid, indicative of lower income households, tended to report a higher level of TL overall (mean = 3.79), than students who were not on financial aid (mean = 3.22). Table 11 shows each variable coded by group and sorted from lowest mean to highest mean. Although none of the other variables demonstrate significance at the .05 level, the table still captures descriptive characteristics of the breakdown through this sorting. For example, the total years of cumulative prior work experience did not show any progressive trends in degree of TL reported. Group 2 (3-5 years) showed the highest degree of TL, followed by group 1 (<3 years), then group 4 (10-15 years), then group 3 (6-9 years) and lastly group 5 (15+ years). No clear patterns emerge in progressive groupings for any of the variables. Two demographics, the company and the number of years lived in this country, each contain one outlier group much lower than the remaining distribution. However, it does not seem that these outliers are impacting the data analysis, as their p value is very high and there are many groups within each category with values similar in range. Upon further investigation, each outlier group was also determined to be composed of only one student.

Table 11
Analysis of Variance for Personal Variables

Gender p = 0.21	Group mean	F 3.31	M 3.68						
Company p = 0.37	Group mean	3 1.89	6 3.26	7 3.67	1 3.69	5 3.74	4 3.75	2 3.97	
Internship Function p = 0.91	Group mean	2 3.27	1 3.38	4 3.44	8 3.44	5 3.67	3 3.70	7 4.06	9 4.11
Age Group p = 0.19	Group mean	7 2.44	5 2.70	3 3.15	4 3.44	1 3.53	6 3.67	2 3.97	
Ethnicity p = 0.50	Group mean	7 3.00	2 3.41	8 3.44	3 3.50	4 4.37			
Highest level of education p = 0.42	Group mean	5 2.94	2 3.44	4 3.72	3 3.78				
Years lived in this country p = 0.39	Group mean	3 2.00	1 3.32	6 3.55	4 3.58	2 3.73	5 4.56		
Years of prior work experience p = 0.49	Group mean	5 3.04	3 3.21	4 3.62	1 3.68	2 3.83			
First work experience in profession p = 0.39	Group mean	2 3.32	1 3.60						
Semester of enrollment p = 0.56	Group mean	1 2.93	4 3.13	3 3.57	5 3.67	6 3.78	2 3.78		
* Financial aid p = 0.05	Group mean	2 3.22	1 3.79						

N = 35

Impact of learning, worksite, and program support. Twenty-seven survey questions explored the impact of three broad program components on the degree of TL experienced by the student: the overall learning experience, worksite factors, and program support from the college. A correlation analysis performed for all 35 students against each of these broad program components is reported in Table 12. The findings indicate that the quality of the learning experience has the most strength in predicting outcomes of TL, positively correlated at $r = 0.72$. Worksite factors followed with a positive correlation of $r = 0.59$. Program support from the college was also positively correlated at $r = 0.38$ to the degree of TL experienced by the student, but at a slightly lower .03 confidence level rather than the 0.01 confidence level.

To provide a means of comparison, the learning experience was also correlated against the remaining two broad program components. The strength of worksite factors

were almost equally correlated with the learning experience ($r = 0.60$) as with the degree of TL ($r = 0.59$) reported. However, college program support was only significantly positively correlated with the degree of TL. Program support from the college was not found to have a significant impact on merely the student's general learning experience at the 0.05 significance level.

Table 12

Correlational Analysis of Learning, Worksite, and College Support

TL Correlated with:	Learning Experience	Worksite Factors	College Program Support
correlation coefficient	0.7226	0.5913	0.382
significance	<0.001	<0.001	0.024

Learning correlated with:	Worksite Factors	College Program Support
correlation coefficient	0.6068	0.2862
significance	<0.001	0.096

TL = transformational learning

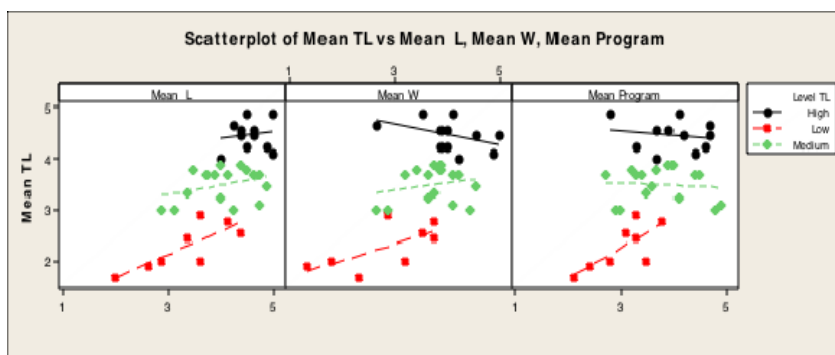
A further correlation analysis by high, medium, and low TL groups yields a different picture (Table 13 and Figure 2). The eight students who experienced the lowest degree of TL were the most strongly positively correlated to the learning experience ($r = 0.80$), slightly above the means of all students ($r = 0.72$ in Table 12). This low TL group was also highly impacted by college program support ($r = 0.76$), twice that of the correlation for all students ($r = 0.38$ in Table 12). Both correlations are statistically significant at the 0.03 level. No clear findings result from the medium and high TL groups as they aren't statistically significant.

Table 13

Correlational Analysis of Broad Program Components by Degree of Transformational Learning

TL correlated with:	Learning Experience	Worksite Factors	College Program Support
low TL correlation coefficient	0.809	0.6629	0.76
low TL significance	*0.015	0.073	*0.029
medium TL correlation coefficient	0.3321	0.2326	-0.0936
medium TL significance	0.209	0.386	0.731
high TL correlation coefficient	0.1431	-0.4405	-0.199
high TL significance	0.675	0.175	0.558

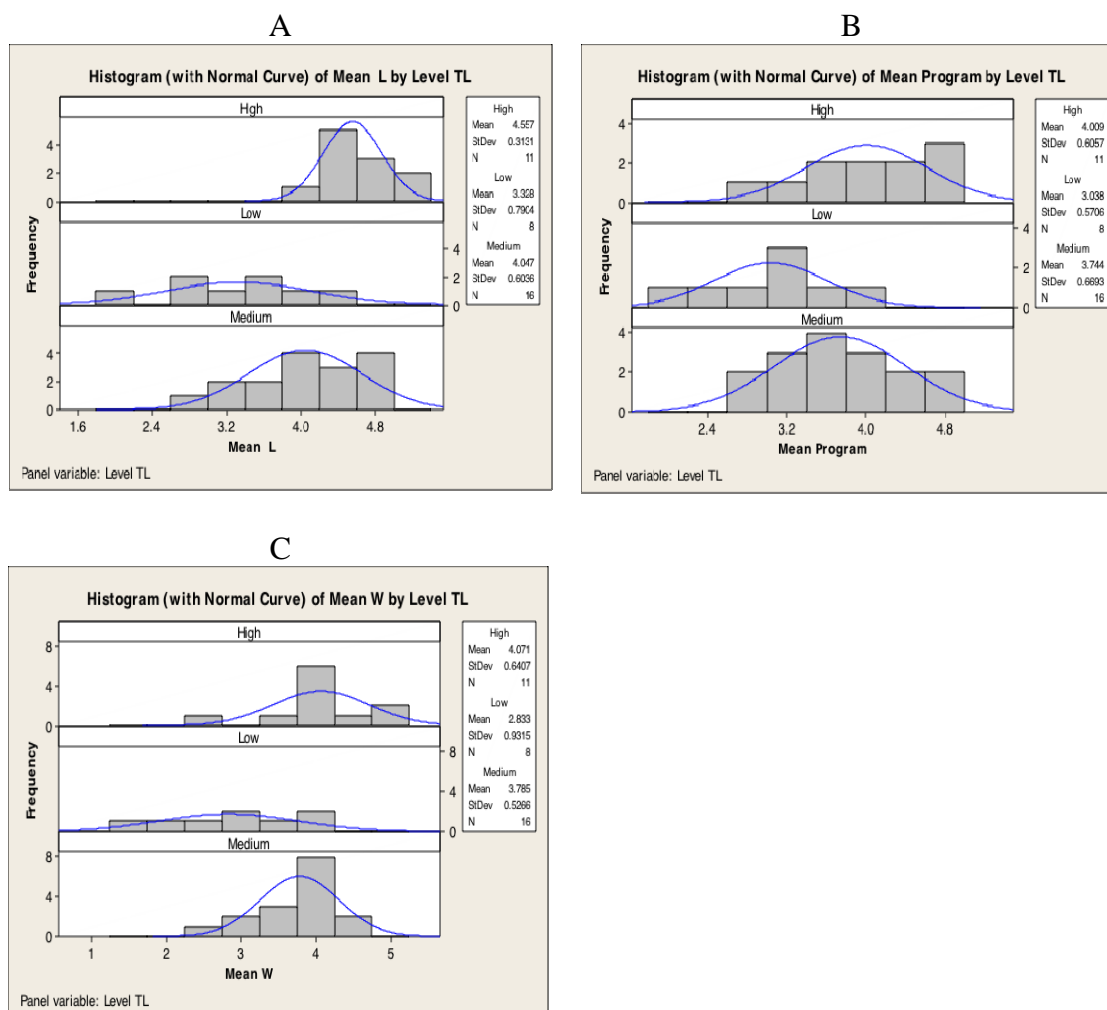
TL = transformational learning



TL = transformational learning; L = learning; W = worksite

Figure 2: Scatterplot Means of Learning, Worksite, and Program Support by Degree of Transformational Learning

To help understand these differences in overall correlations, a histogram (Figure 3) and descriptive statistics on the distribution of means for each of the three broad program components helps provide insight into the data by high, medium, and low TL groups. There is broad variation overlapping the high, low, and medium TL groups for the distribution of means regarding the overall learning experience (Figure 3A), worksite factors (Figure 3B), and program support from the college (Figure 3C).



TL = transformational learning; L = learning; W = worksite

Figure 3: Distribution of Transformational Learning and Broad Program Component Means by Degree of Transformational Learning

Table 14 compares the difference in means between the high and low TL groups for the overall impact of learning, worksite, and program support components. A t-test of difference in means was significant for all three broad program components at the 0.01 significance level. The high TL group consistently presented the lowest standard deviation by all three broad program components, with values ranging from 0.31 to 0.64. The low TL group was much higher for the worksite ($SD = 0.93$) and learning components ($SD = 0.79$). The difference in means between the high TL and low TL

groups was slightly greater for learning (1.22) and the worksite (1.23), as compared to program support (0.97). Overall, program support showed the weakest strength in predicting outcomes of high TL, even though there was a significant positive correlation for the low TL group (see Table 13 previously summarized).

Table 14

Comparative Means of Broad Program Components by Degree of Transformational Learning

Variable	Level TL	N	Mean	SD	T-test	Significance
Mean Learning	High	11	4.5568	0.313	4.17	0.003
	Low	8	3.328	0.790		
	Medium	16	4.047	0.604		
Mean Worksite	High	11	4.071	0.641	3.40	0.006
	Low	8	2.833	0.932		
	Medium	16	3.785	0.527		
Mean Program	High	11	4.009	0.606	2.77	0.014
	Low	8	3.038	0.571		
	Medium	16	3.744	0.669		

TL = transformational learning

Learning experience variables. The student learning experience was rated on variables related to universally defined learning objectives and outcomes by the institution which included professional skills and knowledge, professional ethics, professional behavior, networking, career clarity, communications/ interpersonal skills, critical thinking skills, and technical skills for their major. The data is summarized in Table 15 and measures only learning outcomes, not TL outcomes.

Table 15***Strength of Learning Experience Variables***

Variable	Question	High		Low		All		T-test	Sig.
		Mean	SD	Mean	SD	Mean	SD		
Career Clarity	I am less clear about my future career goals*	4.73	0.47	4.00	0.93	4.2	0.99	2.04	0.07
Critical Thinking	I am less confident in my problem-solving abilities*	4.45	0.52	3.88	0.99	4.2	1.03	1.51	0.16
Professional Ethics	I better understand business & ethical values for this profession	4.73	0.65	3.25	1.16	4.11	0.95	3.24	0.01
Networking	I have made professional connections	4.55	0.52	2.88	1.36	4.06	1.13	3.31	0.01
Professional Behavior	I am less confident in exhibiting successful professional behavior*	4.45	0.52	3.38	0.92	4.06	1.12	3	0.01
Professional Skills & Knowledge	I better understand the key skills & knowledge for this profession	4.55	0.52	3.38	1.06	3.97	1.06	2.88	0.02
Technical Skills in Major	I am more confident in my academic and technical abilities	4.55	0.52	3.00	1.20	3.89	0.9	3.43	0.01
Communications & Interpersonal Skills	I am more confident in my communications/ interpersonal skills	4.45	0.69	2.88	0.99	3.86	0.68	3.88	<0.01

N = 35; *Responses inverted to accommodate a unified Likert scale distribution, so a high score indicates more clarity or more confidence.

All eight learning variable factors ranked closely for the thirty-five students, ranging in mean from 3.86 to 4.2. The strongest learning for all students was related to career clarity and critical thinking, followed by professional ethics and then professional behavior and networking. For the high TL group, career clarity and professional ethics topped the list. Networking, professional, and technical skills were also significant areas of learning. Of all the learning variables, students reported the least confidence in their technical skills and communications skills learned. A t-test for the difference in means

between the high and low groups was found to be significant for 75% of the learning variables at the .02 confidence level, all but career clarity and critical thinking.

Worksite factor variables. The cooperative work placement site was rated on variables of job training, job fit, new skills, skills practice, learning experience, supervision, responsibility, coworker support, and culture fit. Four additional variables originally included on the survey instrument as part of the program components were added to the analysis of worksite factors for more appropriate relevance: professional development training, performance feedback, mentoring, and coworker feedback. The data is summarized in Table 16.

These 13 factors spanned a broader spread for all 35 students, ranging in means from 2.74 to 4.37. Students overall ranked coworker support and culture fit highest, which also had the lowest variance and standard deviation by up to half as much as other factors. Coworker feedback and the learning environment followed in mean rankings, with supervisor and mentor feedback tied for the next spot. Together, this cluster of six variables illustrates the strong influence of worksite relationships on the student experience. Data for the high TL group parallels this same trend with one exception-- new skills practice topped the list above the six relational worksite variables. Job fit and skills practice rated lowest across all students as well as for the high TL group. A t-test for the difference in means between the high and low groups was found to be significant at the .05 confidence level for 75% of the worksite variables, all but culture fit, job training, and employer professional development training.

Table 16
Strength of Worksite Factor Variables

Variable	Question	High Mean	SD	Low Mean	SD	All Mean	SD	T- Test	Sig.
New Skills	I was able to practice new skills learned on the job	4.73	0.47	2.38	1.19	3.77	1.11	5.31	<0.001
Coworker Support	My coworkers were accepting and helpful	4.55	0.52	3.63	0.74	4.37	0.69	3	0.01
Culture Fit	I was able to fit in with the workplace culture	4.45	1.04	3.63	1.19	4.29	0.93	1.59	0.14
Performance Feedback	Supervisor feedback was a valuable part of my learning	4.45	0.82	3.13	1.46	3.89	1.13	2.33	0.04
Coworker Feedback	Coworker feedback was a valuable part of my learning	4.36	0.81	3.00	1.31	3.97	1.04	2.61	0.02
Learning Experience	An effort was made to make it a learning experience for me	4.36	0.67	2.88	1.64	3.94	1.19	2.42	0.04
Mentoring	Employer mentor was a valuable part of my learning	4.36	1.21	3.25	0.89	3.89	1.28	2.32	0.03
Increasing Responsibility	My supervisor provided levels of responsibility consistent with my abilities	4.09	1.14	2.50	1.31	3.51	1.29	2.76	0.02
Job Training	I was trained adequately in workplace procedures and guidelines	4.00	1.18	3.38	0.74	3.66	1.16	1.41	0.18
Professional Development Training	Employer training sessions were a valuable part of my learning	3.91	1.58	3.00	1.20	3.69	1.32	1.43	0.17
Supervision	Regular feedback was provided on my progress and abilities	3.91	1.45	2.50	1.31	3.34	1.3	2.22	0.04
Job Fit	Work experience related to my academic and career goals	3.64	1.12	2.50	1.31	3.29	1.13	1.98	0.07

N = 35

Program support variables. The cooperative work placement experience included academic program support from the college in terms of online journal reflections, class meetings, student peer feedback, professor feedback, peer mentors, and instructional resources. Data from these variables are summarized in Table 17.

Table 17***Strength of College Program Support Variables***

Variable	Question	High Mean	SD	Low Mean	SD	All Mean	SD	T- test	Sig.
Class Meetings	Class meetings were a valuable part of my learning	4.00	0.63	2.63	1.19	3.51	1.07	2.98	0.01
Professor Feedback	Professor feedback was a valuable part of my learning	4.00	0.89	3.25	0.71	3.77	0.91	2.04	0.05
Peer Mentor	Peer Mentor was a valuable part of my learning	3.91	1.22	3.63	0.74	3.71	1.02	0.63	0.54
Classmate Feedback	Classmate feedback was a valuable part of my learning	3.82	0.87	2.75	1.16	3.46	1.07	2.18	0.05
Resource Support	Adequate resources were available for success	3.82	0.98	3.25	0.71	3.71	0.83	1.47	0.16
Online Reflections	Online reflections were a valuable part of my learning	3.45	1.51	2.50	1.07	3.06	1.28	1.61	0.12

N = 35

Five of these six factors ranked closely for the thirty-five students, ranging in mean from 3.46 to 3.77, with the sixth variable not far behind at 3.06. Overall, students ranked professor feedback highest, followed by peer mentor and general resource support. For the high TL group, class meetings and professor feedback were equally tied for the highest ranking, followed by the peer mentor. The data parallel the trend seen in worksite factors with a cluster of variables that illustrate the strong influence of relationships on the student experience. For all students as well as the high TL group, online journal reflections were given the least valuable ranking. A t-test for the difference in means between the high and low groups was found to be significant at the .05 confidence level for 50% of the program support variables, which included class meetings, professor feedback, and classmate feedback.

Summary

This chapter presented the findings for the conditions and outcomes of student TL in a community college work placement context. Thirty-five student participants were divided into three groups based upon their overall TL scores. Eleven students were determined to experience a high degree of TL and eight experienced a low degree of TL, with sixteen in the middle. Inferential statistics were then performed to compare any differences between the high and low TL groups for how much of a change occurred, how many a priori indicators of TL identified in the literature were involved, and what learning context supported the TL processes.

Comparatively, high TL students experienced nearly twice the degree of change as experienced by low TL students. High TL students also experienced a much broader scope of TL. As a group, these students exhibited eleven of the twelve a priori TL outcomes substantiated in the body of research. In general order of significance these were: self-growth, frame of reference (including assumptions challenged and point of view), confidence, new possibilities, empowerment, new behaviors and habits, self-directed learning, holistic integration, new epistemology, cultural awareness, and a new identity role. Each of the high TL students also demonstrated multiple TL outcomes, whereas less than 25% of the low TL students revealed any demonstration of ten of the a priori TL outcomes.

The learning context also critically shaped the degree and type of TL experienced by the students. Two aspects of the learning context emerged as significant. First, the positive or negative emotional nature of the experience notably impacted the likelihood and degree of student TL. Overwhelmingly, the high TL students attached positive

statements to their experiences, and the low TL students attached negative statements to their experiences.

Second, the likelihood and type of TL was framed by six main learning themes: personal growth, professional learning, career learning, work culture, relationships, and professionalism. Both high TL and low TL students reported at least one aspect of personal growth from their semester-long work placement experience. However, the dominant themes of difference between the high and low TL students were professional learning exposure, work culture and relationships. In particular, four key facilitators were cited by high TL students that were not reported by the low TL students: challenge, teamwork, recognition, and valuing exposure to corporate assets. The most significant sources of support for the high TL students were strong relationships with coworkers, supervisors, and mentors.

Individual pathways to TL also influenced the type of TL outcomes experienced by students. Confidence, frame of reference, new behaviors and habits, and self-directed learning and initiative were commonly found in multiple configurations. However, the intersection of three main spheres of learning influenced the remaining seven TL outcomes reported. New possibilities, empowerment, and cultural awareness were most commonly found where professional learning intersected with personal or career learning. Self-growth or a new epistemology often emerged in the intersection of personal learning with professional or career learning. Finally, high TL outcomes of a student's holistic integration of learning or a new identity role tended to come through the intersection of all three spheres of learning, and were least common overall.

Aggregate spheres of contextual influence tended to produce deeper but less common TL outcome findings. Also, no particular pathway emerged as the most

prevalent context for TL. The most commonly reported overall high TL outcomes of self-growth, frame of reference, and confidence were spread over three of the four identified pathways.

The second research question explored personal, program, and worksite conditions to analyze the effects on student TL. Across all 35 five student participants, the only significant personal variable was whether or not they were a recipient of financial aid. Students on financial aid, indicative of lower income households, reported a higher level of TL than those who were not receiving financial aid. No statistically significant difference was found in the results by gender, company, internship function, age group, ethnicity, highest level of education previously obtained, years lived in this country, cumulative years of prior work experience, years of relevant work experience in their internship field, or semester of completion in college.

The conditions of the students' overall learning experiences, worksite factors, and program support from the college were all positively correlated with TL. The findings indicate that across all students, the learning experience had the most strength in predicting outcomes of TL ($r = 0.722$). This was followed by worksite factors ($r = 0.591$) and lastly college program support ($r = 0.382$). The strength of worksite factors was also almost equally correlated with the learning experience as with the degree of TL reported. The data was insufficient to suggest any specific findings for the high and medium TL groups, but the low TL group demonstrated a significant positive correlation with the learning experience and with the college program support. Of all conditions studied, program support was the most stable, although weakest, independent variable across the high, medium, and low TL groups.

Specific components of the learning experience, worksite, and program support were also studied to explore the most predictive strength for high TL outcomes. For the learning experience, career clarity and critical thinking skills weighed most heavily across all students. The high TL group ranked a new understanding of professional ethics second to greater career clarity.

For worksite factors, the findings suggest that worksite relationships have the strongest influence on the student experience, above job fit or skills practice. A cluster of six relationship-oriented independent variables ranked from greatest to least were coworker support, culture fit, learning environment, and coworker, supervisor, and mentor feedback. The high TL group, however, ranked new professional skills practice at the top.

For college program support factors, the relationship-oriented variables similarly exerted the strongest influence on the student experience. Across all students, professor feedback ranked highest, followed by peer mentor and general resource support. The high TL group ranked class meetings equally high with professor feedback for the top place of influence.

The next chapter will discuss the implications of these results. Recommendations for further research also are provided.

Chapter 5

Discussion

This study explored the conditions and outcomes of student TL in a semester-long community college work placement context. Specifically, this study explored two related research questions:

1. What outcomes characterize student TL in a community college work placement context?
2. What personal, program, or worksite conditions tend to impact student TL?

The results of this study do not provide definitive answers, but offer deeper insights on the TL process and outcomes for students. This study also provides college and workplace program administrators valuable information for creating meaningful programming. This chapter discusses the conclusions drawn for each research question, implications and recommendations, limitations, and directions for future research.

Conclusions

For the first question, the research concluded that TL can be characterized by the degree of change experienced and the scope of TL outcomes demonstrated. High TL students not only experienced nearly twice the degree of change as low TL students, but also experienced multiple outcomes of TL. TL is also highly individualized and significantly characterized by the student's pathway through the learning context, including various spheres of learning and positive sources of support. For the second research question, learning, worksite, and program support conditions significantly impact TL. The effects of all of these conditions also build upon each other to shape the TL experience in totality for the student. These findings will be further explored in the sections below.

Participant transformational learning outcomes. For the first research question, one third (31%) of the student participants were found to experience a high degree of TL in this study. This is similar to other studies of TL, which have found a proportion of students in the range of 32-66% experiencing perspective transformation. These studies were conducted across a range of contexts from ESL adult learners to continuing professional development of educators enrolled in graduate programs (Glisczinski, 2007; King 2000b, 2004).

One conclusion from the study findings is that students who experience a high degree of TL demonstrate multiple TL outcomes. These occur across various developmental lines, including the cognitive, psychological, emotional, rational, spiritual, and social domains. This requires a whole person approach and a holistic inclusion of theoretical frameworks. This study characterized TL by aggregating twelve TL outcomes in the body of research which drew from four foundational theoretical approaches, emancipatory, perspective transformation, developmental, and spiritual-integrative. As a group, the high TL students exhibited eleven of these twelve a priori TL outcomes. The dominant outcomes were self-growth, frame of reference (including assumptions challenged and point of view), confidence, new possibilities, empowerment, and new behaviors and habits. These outcomes draw from all four foundational frameworks (Table 18).

In addition, TL outcomes of self-directed learning, a holistic integration of learning, new epistemology, cultural awareness, and a new identity role were also identified in students experiencing a high degree of TL. These outcomes also cross all four foundational frameworks. This conclusion supports Gunnlaugson's (2005) call for a

metatheoretical approach to future studies of TL that expands the body of knowledge beyond any one point of view or domain of learning.

Table 18

Summary of Transformational Learning Frameworks and Dominant Transformational Learning Outcomes

TL Framework	Dominant TL Outcome	Secondary TL Outcomes
Developmental	Self-growth Confidence New possibilities New behaviors and habits	Self-directed learning New epistemology New identity role
Perspective Transformation	Frame of reference Confidence New behaviors and habits New possibilities	
Emancipatory	Empowerment New possibilities	Cultural awareness Self-directed learning
Spiritual-Integrative	New possibilities	Holistic integration of learning New identity role

TL = transformational learning

By comparison, nearly two-thirds of the low TL students experienced two indicators of TL which appear related, self-growth and challenged assumptions. However, this did not result in TL. The study results indicated that a key facilitator of these two outcomes was the overall negative nature of the learning experience, work culture, work relationships, and lack of challenge. Following Mezirow's 10 principles, a disorienting dilemma is only the first step in the process which is not necessarily transforming unless critical reflection leads to a reframing of point of view and new behaviors or habits. The low TL students tended to turn inward and became more clearly aware of what they liked or didn't like, rather than looking outward at their environment more differently. This aligns with Mezirow's theory that Habermas's content and process learning domains are insufficient for TL to occur (K. Taylor, 2000). Premise reflection, which Mezirow defined as focusing on deeper questions of 'why,' is necessary for TL to occur in the cognitive-rational perspective transformation view. The results of the low TL

students are similar to other research studies. One study of 153 graduate students found that while 73% experienced a disorienting dilemma, only 47% explored a critical reflection beyond the instrumental content domain, and ultimately only 35% reframed their point of view and demonstrated this in new actions and behaviors (Glisczinski, 2007).

A second conclusion of this study is that the developmental construct of cognitive, psychological, and emotional lines of development was most significant in characterizing TL for these students on their semester-long work placement experiences. Four dominant TL outcomes and three secondary TL outcomes were encompassed in the developmental framework, including two of the top three most common, self-growth and new possibilities.

This connects to the third conclusion, that the contextual environment of professional learning, work culture, and work relationships had the biggest impact on students experiencing TL. These corporate work placements were new professional experiences for the students, and offered rich opportunity for them to negotiate their ‘evolving, growing self’ in their sense of self identity, responsibility, roles in society, and values, even though they were already adults (K. Taylor, 2000, p. 159). The social learning dimension of their internship placements cannot be ignored. Positive or negative experiences with coworkers, supervisors, or their company work culture were the strongest differentiators of TL described by high TL versus low TL students. Relationships are integral to the developmental approach as most psychological models trace the development of self-maturity in relation to others and the larger community. Previous research studies have also pointed to the important role of context and

relationships in shaping and accelerating TL (Nohl, 2009; O'Hara, 2003; E. Taylor & Snyder, 2012).

A fourth conclusion is that TL occurs along highly individualized pathways, yet the interplay of multiple developmental lines and contextual learning spheres results in deeper TL outcomes. TL is an iterative process. The intersecting configurations of three main spheres of learning, personal, professional, and career, were found to influence seven of the eleven types of TL outcomes experienced by students. New possibilities, empowerment, and cultural awareness were most commonly found where professional learning intersected with personal or career learning. Self-growth or a new epistemology often emerged in the intersection of personal learning with professional or career learning. Finally, high TL outcomes of a student's holistic integration of learning or a new identity role tended to come through the intersection of all three spheres of learning.

A fifth conclusion is that new experiences and new relationships catalyze opportunities for empowering outcomes of TL. It is interesting to note that although these were career-building experiences, career learning was not the dominant theme expressed by students. Personal growth and professional learning were more impactful. A distinguishing aspect of the work placement program in this study was the corporate immersion experience. Strong themes of exposure to mentors, successful role models, corporate assets, technological resources, and high standards of professionalism were described by the high TL students. These were new aspects of professional learning for them, and strongly connected to the deeper TL outcomes of seeing new possibilities and empowerment.

In a comparison to the literature, new possibilities and empowerment are not generally listed as the most prevalent TL outcomes. E. Taylor's (2007) review noted that

most TL experiences seem to share certain general outcomes such as confidence, assertiveness, and self-direction, and yet the specific environmental context was likely a more significant factor. Themes of TL are certainly far-reaching and broadly encompass themes of the specific learning context, personal change, and cultural learning (King, 2004), open-mindedness and reflective orientation (King, 2000b). However, emancipatory themes centered on the empowering possibilities of social knowledge creation have been identified by previous researchers in the context of new group relationships and collaborative dialogue (Ziegler et al., 2006), exploring unconscious dynamics and emotional intelligence in interpersonal communications (Mortenson, 2007), and internal identity and development (Gray, 2006).

Personal, program, and worksite conditions, For the second research question, learning, worksite, and program support conditions all positively correlated to TL. For personal conditions, the research concluded that the only factor of significance was financial aid. Students on financial aid, indicative of lower income households, reported a higher level of TL than those who were not receiving financial aid. Other researchers have similarly found that demographic factors such as age, race, marital status, or prior education have no significance on predicting TL outcomes of perspective transformation (King, 2000b).

A second conclusion is that the learning experience had the most strength in predicting outcomes of TL, followed by worksite factors and then college program support. Learning new professional skills and industry ethics most strongly influenced their learning. High TL also students described the influential role of professional learning, work culture, and work relationships on their experiences. However, college program support had the weakest, but most stable influence over all students, those

experiencing high, medium, or low degrees of TL. If resources were limited, investing in college program support may not strike the greatest degree of impact, but would most broadly impact all students involved in the experience. Several previous research studies have focused on this aspect of fostering TL from the perspective of the educator (E. Taylor, 1998, 2007).

Implications and Recommendations

The implications of these conclusions span the field of research for TL as well as practical applications for program administrators of cooperative work placement programs and organization development practitioners. These will be discussed in the sections below.

Transformational learning research. One implication of the study findings is that TL as a field must move towards a meta-theoretical integration and discourse. The field has evolved over the last few decades, but still includes a preemptive focus on perspective transformation, and remains fragmented by various theoretical paradigms. Researcher bias in exploring the framework which most interests them has perpetuated this fragmentation (Dirkx et al., 2006). The results of this study clearly indicate that TL occurs along multiple threaded pathways and produce broad TL outcomes. Specific theoretical assumptions of cognitive, social, rational, emotional, developmental frameworks selectively explore specific intelligences or lines of development and their related outcomes. Seminal researchers have recently critiqued this bias in weighting the specific form or context of TL as singularly evaluative (Dirkx et al., 2006; Gunnlaugson, 2008; E. Taylor, 2007; E. Taylor & Snyder, 2012). Furthermore, it is a jump to believe that a classical, mechanistic paradigm could explain the functioning of a whole person or a whole system.

Additionally, the interaction of the student with the context of their learning environment introduces complexity into the process. The results of this study indicate that the sphere of learning experienced by the student tended to shape the type of outcome experienced. For example, the intersection of professional learning with personal learning or career learning often produced TL outcomes of new possibilities, empowerment, and cultural awareness. TL may then continue through nested networks of relationships and dynamic feedback loops. Several students in the study experienced professional empowerment spilling over into personal empowerment and a holistic integration of new possibilities for themselves. A systems-thinking orientation expands awareness of these dynamic feedback loops across various TL process facilitators and individual research paradigms. As early educators like Dewey and Freire believed, learning is a complex and messy process.

The complexity of the individual learner adds further implications. Multiple lines of intelligence exist beyond the foundational cognitive-rational, cognitive-social, emotional, psychological, and spiritual lines of development defined by first-wave frameworks. These co-exist to varying degrees of development in the individual learner, and are influenced by personal background. However, much of the foundational research has focused on framing linear stages and process developments. The conclusions of this study support Gunnlaugson's (2005) proposal that new directions for TL must unfuse traditional stages of development and explore the interplay of learning transformation across various developmental lines and developmental degrees, as influenced by individual consciousness and environmental factors.

A second recommendation for the field of TL research is to explore positive, holistic approaches of study. Positive emotions were the strongest differentiator of high

versus low TL in this study. Three key positive facilitators of TL were also identified in this study, recognition, a culture of teamwork, and a valuing of the corporate assets. In contrast, Mezirow's 'disorienting dilemma' of workplace challenges or unfamiliar territory was found as a catalyst for TL in this study, but it was not sufficient to predict TL. Holistic themes of new possibilities and empowerment were also more significantly found in the stories of the student participants than TL outcomes more commonly reported in the literature, such as confidence, assertiveness and self-direction (E. Taylor, 2007).

The problem-oriented foundations of much of the traditional theoretical base narrows the view of what constitutes TL and what can be further understood about its continuing transformative potential. TL is simply defined as "a deep, structural shift in basic premises of thought, feelings, and actions... that makes us understand the world in a different way, changing the way we experience it and the way we act in our day-to-day lives" (Transformative Learning Centre, 2012). The methodologies of TL research should not get in the way of exploring TL in its fullest sense. The field should lean more into unknown exploratory research and also embrace its underpinning philosophy that TL as it relates to life concerns "expanding our future capacity for rich, meaningful experience" (Pugh, 2011, p. 108).

Program design. Program administrators of cooperative education and work placement programs can learn from the key facilitators identified in this study. One recommendation is to ensure the quality of the professional learning experience by having an appropriate job match and available mentor or supervisor. An appropriate degree of challenge, coworker support, and mentoring were strong facilitators for TL in this study. While the learning experience, worksite conditions, and college program

support were all positively correlated to student TL, the quality of the learning experience had the greatest impact. Work culture and coworker relationships were also significant factors, particularly as positive or negative emotions were attached. The culture fit to a job or employer match should not be underestimated early on in the placement process, and in-person interviews should be a priority. Success in the workplace requires more than the technical competency to perform a job.

Another implication for program design is that the classroom environment measures student success by learning outcomes, but not TL outcomes. The workplace environment tends to measure internship success by on-the-job performance and a solid recruiting pipeline. However, TL experiences are peak experiences as well as iterative processes which enrich and expand everyday experiences. This will become increasingly poignant for both educators and the workplace. Soft skills and independent thinking are mutually important.

A recommendation to foster TL through collaborative inquiry and self-reflection, inclusive of emotional and social intelligence around interpersonal communications, mentoring, and leadership development programming, will ultimately help meet the goals of educators and employers. Internship program models should be connected to academic and workplace programming to ensure the highest success. Exposure to quality corporate resources created new opportunities and experiences for students in this study that offered high-impact examples of success not found in the traditional educational environment. These are strengths of corporations and should be leveraged in partnership development and program design. Likewise, previous research has established that the educator can play a significant role in building trust and fostering TL in the classroom (E. Taylor,

1998). More time and resources for exploring the TL process sits in the domain of educators.

A third implication for program design points to the mechanics of the classroom environment. The process of TL comes in many forms. However the power of TL is expressed in its outcomes. Some of the most significant results from this research study were the TL outcomes of empowerment, new possibilities, and new identity. Student learning outcomes were driven by more than human reasoning. Some students overcame their sense of fear and intimidation. One student specifically expressed feeling more free, his spirit lifted, and no longer trapped but more like a tiger. This is evidence of the spiritual-integrative construct operating, where the student accessed emotions and imagery from a deeper part of his being. Rhetorical boundaries of education now encompass individual growth, skills and knowledge acquisition, a variety of modes of thinking, specialized professional development, global citizenship, and a foundation for lifelong learning (Kuh, 2008). Interactive classrooms with space for dialogic reflection and professor and peer feedback were the program support variables of highest impact in this study. It is time that educational program design meets more than cognitive-rational outcomes for students and educates the whole person.

Organization development in the workplace. One implication of a systems approach to TL is to unite the individual learner's paradigm shifts with the higher organizing levels of the system. This study demonstrated that the contextual influence of the learning environment was a critical differentiator of high and low TL students. Professional learning, work culture, work relationships, teamwork, and mentoring dominated the themes described by student participants. These students however, were also considered employees of their organizations. The themes cited parallel research areas

of study for TL in the workplace, including social learning theory and teamwork (Choy, 2009; Cranton, 1996) and leadership development (Poutiatine, 2009; Tafvelin et al., 2011). Workplace TL studies such as Yorks and Marsick's (2000) 3-year review of a management transformation program honed in on an organizational culture of trust and sustained coworker support to help facilitate the openness and readiness of individual learners.

A recommendation is to redesign professional career and leadership development programs as well as talent management and succession planning around authentic learner capabilities such as those that characterize TL (Webster-Wright, 2009). This shift would help build sustainable organizational capacity, rather than mere performance objectives. Learning organizations care about the development of their employees and their ability to learn together across cognitive, psychosocial, emotional lines (Senge, 1990). HR looks at learning and leadership competencies based on today's modern needs for agility and complexity, and employers also look for these skills in new recruits (Ardichvilli & Kuchinke, 2009).

Community colleges and workforce development. The implications of these findings are that 'transformative education' has a critical role for today. Students in the study did not just report adopting new professional behaviors and practices, but expressed a new epistemology and understanding of professionalism, career and life possibilities. They did not just copy models of good behavior, but they made the learning personal. If the role of education is to empower and build capacity in students, fostering TL helps meet this goal. Newman's (2012) proposition that TL is rather simply, "good learning and good educational practice" should be adhered to in some sense (p. 38). The central purpose of education still has its place in the world, particularly with the rapid pace of

globalization. Community colleges in the U.S. are institutions of education, not purely vocational models for workforce training. And meaningful vocations are realized through a holistic career development integration of oneself. One recommendation is that the dialogue on community colleges with a singular focus on jobs and workforce development needs to change.

A second recommendation would be to explore redesign of the organizational assessment frameworks for community college institutions to mobilize around evaluation measures and pedagogy that truly enrich. Current measures, processes, and rewards frameworks for faculty and students do not align around this. The community college students who experienced a high degree of TL in this study also described an emergent sense of hope, empowerment, new possibilities, and overall renewal. Community colleges are places for non-traditional students to make a better life for themselves, and they typically do not come from the same privilege as other types of college students. Amongst a slew of diverse demographic variables in the study participants, the only factor of significance was economic background. Students receiving financial aid were more likely to experience TL than those students not on financial aid. Jobs were certainly important to these students, but they valued their personal learning and relationships from their professional experiences more. A community college population that can envision new possibilities for their future and be grounded in a stronger professional understanding is capacity-building for society.

Limitations

This study is not intended to be generalized to all settings, but provides a further basis of discussion for future research and practical applications. Several limitations impacted this study, including the sample size, variance of study setting, the framework

chosen to characterize TL, researcher bias, unequal attention given to high and low TL student context, and reporting methodologies.

First, this study was a relatively small sample size and was conducted over the course of just one semester. The sample did represent a diversity of majors and worksite placements and provided rich data. However, highly individualized work settings and personal experiences may have influenced the TL outcomes in ways that could not be known without further exploratory study. A larger sample size may also have helped with statistical significance for the correlation of learning, program, and worksite factors with the medium and high groups.

Second, variance of the study setting was not assessed. The quality of worksite factors cannot be assumed to be equal across the board. Student behaviors, values, beliefs, or overall readiness for change were also not benchmarked prior to the study. It was beyond the scope of this study to explore the effects of variance on the results.

Third, the researcher used her own framework to quantitatively characterize TL. While this framework used eight TL outcome indicators substantiated in the body of research and all eight were found to be statistically significant, there is no other study to replicate the validity of this framework as a research method. The framework also relied on the students' self-reported rankings. The questions were subject to the interpretation of the individual student participant and there was no means for testing the reliability of these individual interpretations. Another limitation of the framework is that for simplicity of use, it covered only eight and not all twelve TL outcomes identified in the literature. Additionally, because TL is evolving as a field and is so highly context-dependent, this was not an exhaustive list of all potential TL outcomes that could be identified.

Fourth, the study design relied on a priori coding of TL outcomes and was subject to researcher interpretation and bias. The researcher was able to test her understanding with the student in the interview dialogue, but not in the qualitative survey data. The fact that the researcher knew all thirty-five students well and also served as instructor for the course generally helped to provide a richer understanding of the work placement context, but may also have served as a source of interpretive bias.

Fifth, the researcher only conducted in-depth interviews with the students who experienced a high degree of TL. A comparative study of the conditions and outcomes of students who experienced a low degree of TL was limited to the students' self-reported survey rankings and free survey responses. A richer understanding of the context surrounding the low TL students could have added to the evaluation and robustness of the study.

Sixth, the AI aspect of this study tended to draw out peak experiences and the survey data relied on post-experience reflections. The findings presented are examples of how meaningful learning from a student perspective was experienced in a community college work placement context. Real-time student reflections or outside observer notations could have added to the robustness and reliability of this study.

Future Research

Three recommendations are given for future areas of research. Future recommendations include the incorporation of strengths-based approaches, more exploratory research on the role of context, with specific investigation into the impact of work culture, relationships and power, and broader exploration of multi-educative scenarios. These recommendations would help further the field of TL research, assist

program administrators in better understanding TL facilitators of impact, and open up a multi-stakeholder community interest in fostering TL.

The researcher recommends that AI be further utilized in studies of TL to explore the most meaningful learning from the student's perspective. This is particularly interesting because positive emotions served as a significant differentiator of high TL. A strengths-based approach is a departure from much of the TL research in the field, which has explored the catalyzing nature of a disorienting dilemma or an emancipatory mindset. The AI framework is also useful as a generative research tool, evidenced by the simultaneity principle operating through one student who explicitly responded that he came to a new self-realization during the interview. This aligns with Gunnlaugson's (2007) study which explored how generative dialogue supported transformation shifts across lines, levels, and states of the learner's consciousness.

Strengths-based approaches are also emerging as positive action research tools for study of the classroom and the educational system (Block, 2000). AI was successfully used in at least one other research study to shift focus away from academia's evidence-based outcomes institutional culture and towards a relational, contextual philosophy of education. "Educational discourse has often struggled to genuinely move beyond deficit-based language. Moreover, we seem bereft of educational contexts where the experience for students is holistic and transformative" (Giles & Alderson, 2008, p. 465)

Future directions for research should also continue more exploratory research on the role of context. This could include action research, longitudinal studies, or a discussion of complexity sciences to further explore the interrelated dynamic loops of TL processes, outcomes, and the learning context. E. Taylor's (2007) review of the literature noted that more could be explored by the role of culture and also less formal research

settings. One suggestion would be a further comparative study of pathways for any of the twelve TL outcomes identified in this study. Another suggestion would be to specifically explore the influence of culture, power, or worksite relationships on outcomes of TL. The findings indicate these are all high-leverage facilitators of TL. Also, power or culture operating alone or in combination with relationships, may mask our belief systems or limit the data we select from. TL can help unveil these factors or leverage them for personal empowerment.

To contribute to a broader stakeholder research perspective, a final direction would explore multi-educative scenarios for TL. Some researchers of practice-based learning have highlighted the “multidirectional importance of learning, where all partners in the exchange—hosts, students and academics—have flexible and important roles as teachers, facilitators and learners” (Hodge et al., 2011, p. 168). The authors argue that not only do students have “transformative learning experiences that challenge tacit assumptions,” but neither are academics relegated to the “sidelines of ivory tower” or employers (p. 180). Given the important contextual role of relationships indicated by the results of this study, a deeper study of dynamic interactions across multiple parties would be interesting and could improve understanding and innovation of workforce development models and private-public sector partnerships.

References

- Ardichvili, A., & Kuchinke, K. (2009). International perspectives on the meanings of work and working: Current research and theory. *Advances in Developing Human Resources, 11*(2), 155-167.
- Argyris, C., & Schon, D. A. (1974). *Theory in practice: Increasing professional effectiveness*. San Francisco, CA: Jossey-Bass
- Baumgartner, L. M. (2001). An update on transformative learning. *New directions for adult and continuing education, 89*, 15-24.
- Baumgartner, L. M. (2007). Understanding and promoting transformative learning. *Adult Education Quarterly, 57*, 3.
- Biden, J. (2012, June 21). *Community colleges are changing the way we think about workforce development*. Retrieved from www.whitehouse.gov/blog/
- Block, P. (2000). *Flawless consulting: A guide to getting your expertise used*. San Francisco, CA: Jossey-Bass/Pfeiffer.
- Boyd, R., & Myers, J. (1988). Transformative education. *International Journal of Lifelong Education, 7*, 261-284.
- Brock, S. (2010). Measuring the importance of precursor steps to transformative learning. *Adult Education Quarterly, 60*(2), 122-142.
- Brookfield, S.D. (2000). Transformative learning as ideology critique. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 125-150). San Francisco, CA: Jossey-Bass.
- Brown, K. (2006). Leadership for social justice and equity: Evaluating a transformative framework and andragogy. *Educational Administration Quarterly, 42*(5), 700-745.
- Carrington, S., & Selva, G. (2010). Critical social theory and transformative learning: evidence in pre-service teachers' service learning reflection logs. *Higher Education Research & Development, 29*(1), 45-57.
- Choy, S. (2009). Transformational learning in the workplace. *Journal of Transformative Education, 7*(1), 65-84.
- Ciporen, R. (2010). The role of personally transformative learning in leadership development: A case study. *Journal of Leadership & Organizational Studies, 17*(2), 177-191.

- Cohen, J. B., & Piper, D. (2000). Transformation in a residential adult learning community. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 205-228). San Francisco, CA: Jossey-Bass.
- Courtenay, B. C., Merriam, S. B., and Reeves, P. M. (1998). The Centrality of Meaning-Making in Transformational Learning: How HIV-Positive Adults Make Sense of Their Lives. *Adult Education Quarterly*, 1998 (48), 65-84.
- Cranton, P., & Taylor, E. (2012) Transformative learning theory: Seeking a more unified theory. In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp.3-20). San Francisco, CA: Jossey-Bass.
- Cranton, P. (2000). Individual differences and transformative learning. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 181-204). San Francisco, CA: Jossey-Bass.
- Cranton, P. (1996, September). Types of group learning. *New Directions for Adult & Continuing Education*, 96, 71.
- Cranton, P., & Wright, B. (2008). The transformative educator as learning companion. *Journal of Transformative Education*, 6(1), 33-47.
- Cranton, P., Dirkx, J., Gozawa, J., Kasl, E., & Smith, R. (2006). Reflections on the Sixth International Transformative Learning Conference. *Journal of Transformative Education*, 4(2) 140-156.
- Crebert, G., Bates, M., Bell, B., Patrick, C. J., & Cragolini, V. (2004). Ivory tower to concrete jungle revisited. *Journal of Education and Work*, 17(1), 47-70.
- Creswell, J. W. (2009) *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.
- Daloz, L. A. (2000). Transformative learning for the common good. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 103-123). San Francisco, CA: Jossey-Bass.
- De La Salle General Education Committee. (2004). Towards a Lasallian pedagogical framework of transformative learning. , De La Salle University. Retrieved from www.docstoc.com
- Dirkx, J. M. (2000). *Transformative learning and the journey of individuation*. (ERIC Digest No. 223, ED448305). ERIC Clearinghouse on Adult, Career, and Vocational Education.
- Dirkx, J. M. (2001). The power of feeling: Emotion, imagination, and the construction of meaning in adult learning. In S. B. Merriam (Ed.). *The new update on adult learning theory* (pp. 63-72). San Francisco, CA: Jossey-Bass.

- Dirkx, J. M. (Ed.). (2008). *Adult learning and the emotional self: New directions for adult and continuing education*. San Francisco, CA: Jossey-Bass.
- Dirkx, J. M. (2012a). Nurturing soul work : A Jungian approach to transformative learning (pp.116-130). In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning*. San Francisco, CA: Jossey-Bass.
- Dirkx, J. M. (2012b). Self-formation and transformative learning: a response to "Calling transformative learning into question: some mutinous thoughts," by Michael Newman. *Adult Education Quarterly*, 62(4), 399-405.
- Dirkx, J. M., Mezirow, J., & Cranton, P. (2006). Musings and reflections on the meaning, context, and process of transformative learning. *Journal of Transformative Education*, 4(2), 123-139.
- Ebrahim, A. (2005). Accountability myopia: Losing sight of organizational learning. *Nonprofit and Voluntary Sector Quarterly*, 34(1), 56-87.
- Erickson, D. (2007). A developmental re-forming of the phases of meaning in transformational learning. *Adult Education Quarterly*, 58(1), 61-80.
- Freire, P. (1970). *Pedagogy of the oppressed*. New York, NY: Continuum.
- Giles, D., & Alderson, S. (2008). An appreciative inquiry into the transformative learning experiences of students in a family literacy project. *Australian Journal of Adult Learning*, 48(3), 465-478.
- Glisczinski, D. (2007). Transformative higher education. *Journal of Transformative Education*, 5(4), 317-328.
- Gray, D. (2006). Executive coaching: towards a dynamic alliance of psychotherapy and transformative learning processes. *Management Learning*, 37(4), 475-497.
- Gunnlaugson, O. (2005). Toward integrally informed theories of transformative learning. *Journal of Transformative Education*, 3(4), 331-353.
- Gunnlaugson, O. (2007). Shedding light on the underlying forms of transformative learning theory. *Journal of Transformative Education*, 5(2), 134-151.
- Gunnlaugson, O. (2008, October). Metatheoretical prospects for the field of transformative learning. *Journal of Transformative Education*, 6(2), 124-135.
- Habermas, J. (1971). *Knowledge of human interests*. Boston, MA: Beacon.
- Hanlin-Rowney, A., Kuntzelman, K., Lara, M., Quinn, D., Roffmann, K., Nichols, T., & Welsh, L. (January 01, 2006). Collaborative inquiry as a framework for exploring transformative learning online. *Journal of Transformative Education*, 4(4), 320-334.

- Hanson, L. (2010). Global citizenship, global health, and the internationalization of curriculum: A study of transformative potential. *Journal of Studies in International Education*, 14(1), 70-88.
- Hart, T. (2008). Interiority and education: Exploring the neurophenomenology of contemplation and its potential role in learning. *Journal of Transformative Education*, 6(4), 235-250.
- Harvey, L., Moon, S., Geall, V., & Bower, R. (1997). Graduates' work: Organisational change and students' attributes. Birmingham, UK: Centre for Research into Quality. Retrieved from <http://www0.bcu.ac.uk/crq/publications/gw/gwcon.html>
- Healy, M. (2000). East meets West: Transformational learning and Buddhist meditation. In T. Sork, V. Lee, and R. St. Claire (Eds.), *AERC 2000: An International Conference. Proceedings from the 41st Annual Adult Education Research Conference*. Vancouver, Canada: University of British Columbia. Retrieved from <http://www.adulterc.org/Proceedings/2000/healym-final.pdf>
- Hodge, P., Wright S., Barraket, J., Scott, M., Melville R., & Richardson S. (2011) Revisiting how we learn in academia: Practice-based learning exchanges in three Australian universities. *Studies in Higher Education*, 2(36), 167-183.
- Karakas, F. (2011). Positive management education: Creating creative minds, passionate hearts, and kindred spirits. *Journal of Management Education*, 35(2), 198-226.
- Kegan, R. (1994). *In over our heads: The mental demands of modern life*. Cambridge, MA: Harvard University Press.
- Kegan, R. (2000). What form transforms? A constructive-developmental approach to transformative learning. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 35-70). San Francisco, CA: Jossey-Bass.
- King, K. P. (2000a). *A guide to perspective transformation and learning activities: The Learning Activities Survey*. Philadelphia, PA: Research for Better Schools. Retrieved from <http://www.adulterc.org/Proceedings/2002/papers/King.pdf>
- King, K. P. (2000b). The adult ESL experience: Facilitating perspective transformation in the classroom. *Adult Basic Education*, 10(2), 69-89.
- King, K. P. (2004). Both sides now: Examining transformative learning and professional development of educators. *Innovative Higher Education*, 29(2), 155-174.
- King, K. P. (2008). Workplace performance-plus: Empowerment and voice through professional development and democratic processes in health care training. *Performance Improvement Quarterly*, 21(4), 55-74.
- Kitchenham, A. (2008). The evolution of John Mezirow's transformative learning theory. *Journal of Transformative Education*, 6(2), 104-123.

- Kreber, C. (2012). Critical reflection and transformative learning. In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp. 323-341). San Francisco, CA: Jossey-Bass.
- Kuh, G. D. (2008). High-impact education practices: What they are, who has access to them, and why they matter. Washington DC: Association of American Colleges and Universities.
- Laiken, M. E. (2002). Managing the action/reflection polarity in the OD classroom: A path to transformative learning. *Organization Development Journal*, 20, 52-61.
- Lave, J., & Wenger, E. (1991) *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
- Lewin, T. (2012, 2 14). Money urged for colleges to perform job training. *New York Times*. Retrieved from www.nytimes.com/2012/02/14/education/
- Lipson, L. R., & Cranton, P. (2009). What you see depends upon how you look: A photographic journey of transformative learning. *Journal of Transformative Education*, 7(4), 312-331.
- MacKeracher, D. (2012). The role of experience in transformative learning. In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp. 342-354). San Francisco, CA: Jossey-Bass.
- Mandell, A., & Herman, L. (2007). The study and transformation of experience. *Journal of Transformative Education*, 5(4), 339-353.
- Merriam, S. B., & Kim, S. (2012). Studying transformative learning: What methodology? In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp. 56-72). San Francisco, CA: Jossey-Bass.
- Mezirow, J. (1978). Perspective transformation. *Adult Education Quarterly*, 28(2), 100-110.
- Mezirow, J. (1985). A critical theory of self-directed learning. In S. Brookfield (Ed.), *Self-directed learning: From theory to practice* (New Directions for Continuing Education, 25). (pp.17-30). San Francisco: Jossey-Bass.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.
- Mezirow, J. (2000). Learning to think like an adult: Core concepts of transformation theory. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 3-33). San Francisco, CA: Jossey-Bass.
- Mortenson, S. T. (2007). Raising the question #7: Should we teach personal transformation as a part of interpersonal communication? If so, how is it done? *Communication Education*, 56(3), 401-408.

- Morton, K. (Ed.). (1997). National Society for Experiential Education Foundations Document Committee: Foundations of Experiential Education. *NSEE Quarterly*, pp. 1-15.
- National Association of Colleges and Employers (NACE). (2010, May 26). *NACE 2010 student survey: Interns more likely to have job offers*. Bethlehem, PA: National Association of Colleges and Employers.
- Newman, M. (2012). Calling transformative learning into question: Some mutinous thoughts. *Adult Education Quarterly*, 62(1), 36-55.
- Nohl, A. M. (2009). Spontaneous action and transformative learning: empirical investigations and pragmatist reflections. *Educational Philosophy and Theory*, 41(3), 287-306.
- O'Hara, M. (2003). Cultivating consciousness: Carl R. Rogers Person-centered group process as transformative andragogy. *Journal of Transformative Education*, 1(1), 64-79.
- Poutiatine, M. (2009). What is transformation?: Nine principles toward an understanding of the transformational process for transformational leadership. *Journal of Transformative Education*, 7(3), 189-208.
- Pugh, K. (2011). Transformative experience: An integrative construct in the spirit of Deweyan pragmatism. *Educational Psychologist*, 46(2), 107-121.
- Punch, K. (2005). *Introduction to social research*. London, UK: Sage.
- The Saflund Institute. (2007, February). *Boston Area Technical Education Consortium (BATEC) information technology workforce skills study*. Boston, MA: University of Massachusetts.
- Schein, E. H. (2010). *Organizational culture and leadership*. San Francisco, CA: Wiley.
- Scott, S. M. (2003). The social construction of transformation. *Journal of Transformative Education*, 1(3), 264-284.
- Scribner, J. P., & Donaldson, J. F. (2001). The dynamics of group learning in a cohort: From nonlearning to transformative learning. *Educational Administration Quarterly*, 37(5), 605-36.
- Senge, P. M. (1990). *The fifth discipline: Strategies and tools for building a learning organization*. New York, NY: Currency, Doubleday.
- Siegel, D. J. (2009). *Mindsight: Change your brain and your life*. Carlton North, UK: Scribe.
- Snyder, D. P. (2006). From higher education to longer, fuller, further education: The coming metamorphosis of the university. *On the Horizon*, 14(2), 43-61.

- Socrates. (2013) In *Wikiquote*. Retrieved from <http://en.wikiquote.org/wiki/Socrates>
- Sokol, A. V., & Cranton, P. (1998). Transforming, not training. *Adult Learning*, 9(3), 14-16.
- Tafvelin, S., Armelius, K., & Westerberg, K. (2011). Toward understanding the direct and indirect effects of transformational leadership on well-being: A longitudinal study. *Journal of Leadership & Organizational Studies*, 18(4), 480-492.
- Taylor, E., & Snyder, M. (2012). A critical review of research on transformative learning theory 2006-2010. In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp. 37-55). San Francisco, CA: Jossey-Bass
- Taylor, E. W. (1998). *Theory and practice of transformative learning: A critical review*. (Information Series No. 374). Columbus, OH: ERIC Clearing House on Adult, Career, and Vocational Education.
- Taylor, E. W. (2001). Transformative learning theory: A neurobiological perspective of the role of emotions and unconscious ways of knowing. *International Journal of Lifelong Education*, 20(3), 218-236.
- Taylor, E. W. (2007). An update of transformative learning theory: A critical review of the empirical research (1999-2005). *International Journal of Lifelong Education*, 26(2), 173-191.
- Taylor, E. W. (August 04, 2008). Transformative learning theory. *New Directions for Adult and Continuing Education*, 119, 5-15.
- Taylor, K., & Elias, D. (2012). Transformative learning: A developmental perspective. In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp. 147-161). San Francisco, CA: Jossey-Bass.
- Taylor, K. (2000). Teaching with developmental intention. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 285-328). San Francisco, CA: Jossey-Bass.
- Taylor, K., Marienau, C., & Fiddler, M. (2000). *Developing adult learners: Strategies for teachers and trainers*. San Francisco, CA: Jossey-Bass.
- Tennant, M. (2005). Transforming selves. *Journal of Transformative Education*, 3(2), 102-115.
- Tisdell, E. J. (2008a). Spirituality and adult learning. *New Directions for Adult and Continuing Education*, 119, 27-36.
- Tisdell, E. J. (2008b). Critical media literacy and transformative learning: Drawing on pop culture and entertainment media in teaching for diversity in adult higher education. *Journal of Transformative Education*, 6(1), 48-67.

- Tisdell, E. J. (2012). Themes and variations in transformative learning: Interdisciplinary perspectives on forms that transform. In E. Taylor & P. Cranton, (eds), *A handbook of transformative learning* (pp. 21-36). San Francisco, CA: Jossey-Bass.
- Torraco, R. J. (2008). Preparation for midskilled work and continuous learning in nine community college occupational programs. *Community College Review*, 35(3), 208-236.
- Tosey, P., Mathison, J., & Michelli, D. (2005). Mapping transformative learning. *Journal of Transformative Education*, 3(2), 140-167.
- Transformative Learning Centre. (2012, 10 20). *The Transformative Learning Centre*. Retrieved from <http://tlc.oise.utoronto.ca/index.htm>
- U.S. Department of Labor. (2012, September 19). *Obama administration announces \$500 million in community college grants to expand job training through local employer partnerships*. Retrieved from www.dol.gov/opa/media/press/eta/ETA20121885.htm
- Velde, B., Wittman, P., & Mott, V. (2007). Hands-on learning in tillery. *Journal of Transformative Education*, 5(1), 79-92.
- Watkins, J., & Mohr, B. (2001). *Appreciative inquiry: Change at the speed of imagination*. San Francisco, CA: Jossey-Bass.
- Watkins, K. E., Marsick, V. J., & Faller, P. G. (2012). Transformative learning in the workplace: Leading learning for self and organizational change. In E. Taylor & P. Cranton, (Eds.), *A handbook of transformative learning* (pp. 373-387). San Francisco, CA: Jossey-Bass.
- Webster-Wright, A. (2009). Reframing professional development through understanding authentic professional learning. *Review of Educational Research*, 79(2), 702-739.
- Weissner, C. A., & Mezirow, J. (2000). Theory building and the search for common ground. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 329-358). San Francisco, CA: Jossey-Bass, 2000.
- Wilson, J. W. (1989). Research in cooperative education. *Journal of Cooperative Education*, 24, 77-89.
- Yorks, L., & Marsick, J. (2000). Organizational learning and transformation. In J. Mezirow & Associates (Eds.), *Learning as transformation: Critical perspectives on a theory in progress* (pp. 253-281). San Francisco, CA: Jossey-Bass.
- Yorks, L., & Kasl, E. (2006). I know more than I can say. *Journal of Transformative Education*, 4(1), 43-64.

Ziegler, M., Paulus, T., & Woodside, M. (2006). This course is helping us all arrive at new viewpoints, isn't it? *Journal of Transformative Education*, 4(4), 302-319.

Appendix A: Student Survey Instrument

PART 1. Demographics

Student ID: _____

Company interned at: _____

Job Function: IT HR

Accounting/Finance Graphic Design

Business Operations Marketing/ Communications

Engineering Paralegal

Event Planning

Age group: <21

21-24

25-29

30-34

35-39

40-44

45-49

Major: _____

Ethnicity: _____

International Student: yes no

Prior level of educational attainment: High School GED

Certificate Associates

Bachelors

If you were not born here, how long have you lived in this country?:

1-3 yrs 3-5 yrs 6-10 yrs 10-15yrs 15-20 yrs 20+

Years of previous work experience:

1-3 yrs 3-5 yrs 6-10 yrs 10-15yrs 15-20 yrs 20+

Is this your first work experience in this career profession? yes no

Semester in College? _____

Are you on Financial Aid? yes no

PART 2. Reflection

1. How were your expectations of the work experience fulfilled? What surprised you?
2. What were the most valuable things you learned? Name three things.
3. What were your major achievements? Name three things you are most proud of.
4. What did you learn about yourself on this internship?
5. What was the biggest challenge of your internship? How did you overcome this?

PART 3. Responses to each of the following on a 1-5 point scale:

A. Overall Experience: (Not At All, Slightly, A Fair Amount, Quite A Bit, Strongly)

To what degree were you changed through this experience?
 To what degree has your confidence increased?
 To what degree were your assumptions challenged?
 To what degree have you developed new behaviors or habits?
 To what degree have you grown more self-directed in your learning?
 To what degree have you integrated new areas of learning?
 I discovered new strengths or learning about myself
 I see new possibilities for my future
 Comments:

B. Learning Experience: (Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree)

I better understand the key skills & knowledge for my profession
 I better understand business & ethical values of my profession
 I am less confident in exhibiting successful professional behavior
 I have made professional connections
 I am less clear about my future career goals
 I am more confident in my communications/ interpersonal skills
 I am less confident in my problem-solving abilities
 I am more confident in my academic and technical abilities
 Comments:

C. Worksite:

I was trained adequately in workplace procedures and guidelines
 Work experience related to my academic discipline and career goals
 I was able to practice a majority of the skills I learned in class
 Regular feedback was provided on my progress and abilities
 Supervisor provided levels of responsibility consistent with my abilities
 An effort was made to make it a learning experience for me
 Coworkers were accepting and helpful
 I was able to fit in with the workplace culture
 Comments:

D. Program

Online reflections were a valuable part of my learning
 Class meetings were a valuable part of my learning
 Employer training sessions were a valuable part of my learning
 Supervisor feedback was a valuable part of my learning
 Coworker feedback was a valuable part of my learning
 Professor feedback was a valuable part of my learning
 Peer feedback was a valuable part of my learning
 Peer mentor was a valuable part of my learning
 Adequate resources were available for my success on this internship
 Comments:

Have your goals changed since you began your program? How?

Appendix B: Invitation to Interview

Dear [Name],

As a student in Pepperdine University's Master of Science in Organization Development, I am seeking your participation in an important research project.

The overall purpose of this study is designed to investigate factors that characterize and impact meaningful, transformational learning in a community college student work placement.

Knowledge gained from this study will be useful to help identify what constitutes the most meaningful learning for students. It will also investigate factors that serve as significant enablers or barriers, to help inform educational practitioners and workplace administrators as to how to create and sustain a high level of transformational learning in their program design.

Your participation is strictly voluntary. The interview would be one-on-one with me in a private office space and would take approximately 45 to 60 minutes. So that I can best capture your input, I would like to record the interview and have it transcribed. Your responses will be kept confidential. Your identity will not be revealed in any publication that may result from this project.

If interested, please respond to suggest times and dates that would be most convenient for you over the next two weeks. If you prefer to decline, please also let me know.

Should you decide to participate in the interview, please review the enclosed consent form and contact me with any questions you may have.

I appreciate your consideration and your time.

Thank you,

Sharon

Sharon D. Schaff
617.460.3208
sharon.schaff@pepperdine.edu

Appendix C: Research Consent Form

Informed Consent for Participation in Research Activities

Participant: _____

Principal Investigator: Sharon D. Schaff

Title of Project: *What Characterizes and Impacts Student Transformational Learning in a Community College Work Placement Context?*

1. I _____, agree to participate in the research study being conducted by Sharon D. Schaff, a student in the Master of Science in Organization Development program at Pepperdine University, Graziadio School of Business and Management, under the direction of Dr. Ann E. Feyerherm.
2. The overall purpose of this study is designed to investigate factors that characterize and impact meaningful, transformational learning in a community college student work placement. This research is attempting to deepen the understanding of transformational learning related to experiential education programming and influence the body of mainstream knowledge. This is NOT a study conducted on behalf of [the] Community College. Rather, it is a research conducted by and for Pepperdine University. All research conducted is in partial fulfillment of the requirements for the degree of Masters of Science in Organization Development. Students from the [Fall 2012] program are invited to participate in this study.
3. My participation will involve:
 - a. Researcher access to archival class data, demographic data, and completing an online survey which will take approximately 20-25 minutes to complete.
 - b. I may also be invited to participate in a subsequent 45 to 60 minute interview, which will be conducted face-to-face in [the] Community College conference room or private office space. If I accept this invitation, I grant permission for the interview to be recorded and transcribed, and to be used only by Sharon D. Schaff for analysis of interview data. I understand my responses will be kept anonymous and confidential. If the findings of the study are presented to professional audiences or published, no information that identifies me personally will be released. The data will be kept in a secure manner for one (1) year, at which time the data will be destroyed.
4. I understand there are no direct benefits to me for participating in the study. This is an opportunity to simply share my experiences and personal learning.

5. I understand that there are no major risks associated with this study.
6. I understand that I have fulfilled all requirements for the [Fall 2012] program and am under no further obligations.
7. I understand that I may choose not to participate in this research.
8. I understand that my participation is voluntary and that I may refuse to participate and/or withdraw my consent and discontinue participation in the interview at any time without penalty.
9. I understand that the researcher, Sharon D. Schaff, will take all reasonable measures to protect the confidentiality of my records. My identity will not be revealed in any publication that may result from this project. The confidentiality of my records will be maintained in accordance with applicable state and federal laws.
10. I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described and that I may contact the researcher, Sharon D. Schaff at sharon.schaff@pepperdine.edu or 617.460.3208. I understand that I may contact Dr. Ann E. Feyerherm at ann.feyerherm@pepperdine.edu or 949-223-2534 if I have other questions or concerns about this research. If I have questions about my rights as a research participant, I understand that I can contact Dr. Jean Kang, Chairperson of the Institutional Review Board, Pepperdine University, at gpsirb@pepperdine.edu or 310.568.5753.
11. I understand to my satisfaction the information regarding participation in the research project. All my questions have been answered to my satisfaction. I have received a copy of this informed consent form, which I have read and understand. I hereby consent to participate in the research described above.

 Participant Signature

 Date

 Participant Name

I have explained and defined in detail the research procedure in which the subject has consented to participate. Having explained this and answered any questions, I am cosigning this form and accepting this person's consent.

 Principal Investigator: Sharon D. Schaff

 Date

Appendix D: Interview Protocol

Student Interview Script

Discovery of Content-Process-Premise: What- How-Why

Define: Desired Professional Future

1. What is your hope for professional success? (How would you define it? What does this vision look like? How will you know if you are successful? How important is education, money, values, or a particular employer to your vision of success?) Self-Development, Definition of Personal Growth
2. What obstacles or challenges have you encountered or are in the way of fulfilling your hope for success as you have personally defined it? Self-Development Challenges

Discover: What Characterizes TL

3. What were the most valuable aspects of this internship? (Name 3 things that were most valuable to you. Why? What were the personal impacts (outcomes) on you? How has this experience contributed to your personal growth? Your future sense of success?)
Outcomes
4. What did you learn about yourself on this internship? (Did you discover any new personal strengths or talents?) Outcomes: Self-Growth
5. How have you changed through this experience? (Has your personal or professional perspective shifted? Your behaviors or work habits? Your attitude or approach towards learning? Was there a moment that stands out to you? Outcomes: New Behaviors, Frames of Reference
6. How has this experience impacted your confidence and sense of future direction? (Please describe what this looks like for you? What does this mean for you? Why?)
Outcomes: Confidence, Clarity

Discover: What Impacts TL

7. Tell me about a time when you felt particularly encouraged and supported in this internship? (Where (who) was the support coming from? Was it in your work environment or outside of work? Why was this important to you? Did this affect a particular outcome? How did this impact your perspective) Outcomes + Inputs: Context, Relationships
8. Reflecting on your internship experience, what helped facilitate your success? If you were given the power to change anything, what recommendations would you make to improve the experience for students? (Did you encounter any barriers to success? If so,

Why was this significant? How did you handle it, what was helpful? Outcomes + Inputs: Support, Context

9. How did you see yourself fitting into the workplace culture? (What is your perception of your employer's work culture values? Do they match your values? How did this impact your perspective compared to your peers interning at the same company? Did this affect any particular outcomes?) Outcomes + Inputs: Context, Culture

Dream for Professional Future

10. What have you learned about your career and professional success through this experience? (What future career possibilities do you see for yourself? Have your values, beliefs, expectations, or opinions changed? Has anything in your approach shifted?) Outcomes: Frame of Reference, Clarity, New Possibilities, Ways of Thinking

11. Is there anything I haven't asked that you would like to comment on regarding the value of your internship experience and impact on your learning and self-development?