

Kamps, Anne M. *Faculty Perceptions of Credit for Prior Learning: Factors Affecting Acceptance, Assessment and the Diffusion of Innovation*

Abstract

Meeting US workforce needs requires more adults to achieve post-secondary credentials. For adults, logistical challenges including family responsibilities, access obstacles, and financial constraints. Implementation of credit for prior learning (CPL) in post-secondary education creates an opportunity to increase post-secondary adult access and increases persistence and completion. One literature identified issues inhibiting scaling and adoption of credit for prior learning in higher education, is the lack of faculty support and endorsement.

A mixed method study employed a quantitative survey data, and qualitative focus group data with a thematic reduction. 263 full-time benefit eligible faculty at a multi-campus two-year college provided input on factors and forces affecting CPL acceptance. A subsequent focus group of eight self-identified faculty, participated in facilitated discussion determining critical evidence for meeting CPL course and program outcomes.

Based on the descriptive statistic, independent t-tests, linear regression and one-way MANOVA analysis, factors of compensation, efficiency, and workload impact as well as training and administrative support surfaced as critical to faculty acceptance. Using Rogers (2003) theory of innovation attributes, advantage and compatibility were identified as significant for acceptance. Enduring themes drawn from focus group participants emphasized faculty trust of evidence and expectation of students' initiative as critical in outcome assessment.

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Chapter I: Introduction

Education and training of the nation's human resources are critical in a globally interdependent, competitive world. Human capital, one of the nation's most abundant economic resources, requires development for the US to maintain its highly developed nation (HDN) status (Duncan, 2011; Kosack & Tobin, 2006). In President Obama's first address to Congress, he called on all Americans to commit to at least one year or more of higher education or career training in recognition of the fact that in today's economy the majority of jobs that pay a family-sustaining wage require some post-secondary education (Carnevale, Smith, & Strohl, 2014; Klein-Collins, & Hain, 2009; Lumina Foundation & Gallup, 2013). To achieve the 2020 college completion goal of increasing U.S. college degree attainment from 40% to 60% an additional 10 million Americans ages 25-34 will need to attain an associate or baccalaureate degree.

The workforce system relies on access to qualified, trained workers to remain economically viable. Implementing an expedient and efficient educational system, including recognition for learning already achieved in the workplace, will assist students to progress forward faster in meeting workforce identified requirements (Ryu, 2013). This achievement will require a reinvention of the existing U.S. higher education model, including increased opportunities for previously acquired learning to be used toward degree completion.

The United States aspires to be a knowledge-based economy. Changes in technology sophistication, workforce expectations, and economic restructuring have resulted in employers putting a higher premium than ever on educated workers (Abel & Gabe, 2011; Achieve, 2012). Skills and knowledge requirements are evolving, often demanding college-educated training for positions that previously required a high school graduate. Restructuring of work environments, declines in manual labor-intensive industries, and workforce downsizing has created workforce

instability for Americans. Therefore, building the envisioned high skilled workforce will necessitate reskilling industrial era workers, those with less than a high school degree and those with some college but no degree.

For much of American history, workplace technology transformed slowly, providing sufficient time for employees to acquire the tools and techniques needed to stay competitive. Current technology powers a knowledge-driven, innovation-fueled economy that is producing disruptive change which profoundly affects the employment landscape. Major industry transformation is expected to have an impact on jobs, ranging from significant job creation and displacement, based on heightened labor productivity and widening skills gaps (Borg, 2015). It is increasingly evident that America's rapid development of human capital is critical.

The nation's economy and future prosperity depend on the skills of its workforce requiring access to lifelong learning (American Association of State Colleges and Universities, 2006). Rapidly changing technology, greater job instability, and higher industry expectations and flexibility require employees to continue learning throughout their careers (American Association of State Colleges and Universities, 2006). Frequently, participating requires an extensive time commitment that is prohibitive to adult learners who are balancing work and family responsibilities. For adults, engagement in education can be problematic due to logistical challenges including family responsibilities, access obstacles, and financial constraints.

Although the community college sector is often treated as an adjunct to U.S. higher education, it constitutes the first stop for roughly half of today's college students (Cox, 2009). In contrast to the traditional image of the full-time, youthful college student, enrollment data reveals an alternative view. Over the past half-century, the greatest increase in access to higher education has occurred within community colleges, which expanded significantly faster than the

baccalaureate sector. Since the mid-1960's undergraduate four-year institutions have doubled their enrollments, yet two-year colleges have increased at more than twice that rate (Cox, 2009; Rosenbaum, Deil-Amen, & Person, 2006). In the United States, nearly three-quarters of all college students are categorized as post-traditional aged students (Soares, 2013). Nearly 40 percent of all undergraduate students are over age 25 years, and projections by the National Center for Education Statistics indicate that the proportion of post-traditional learner will continue to grow. Given demands of work schedules and family responsibilities, sub-baccalaureate attainment may be the most practical first or only step for students to acquire education.

Human capital and talent available to the workforce directly affect the economic vitality of the nation and society's opportunity to achieve an expected standard of living. As the U.S. economy recovers from the 2008 global recession, loss of high wage jobs is a persistent challenge. The Bureau of Labor Statistics estimates long-term unemployment of those who have been unable to get a job for over half a year, at 2.1 million Americans (Rothstein, 2016). By comparison, during the Great Recession, 6.8 million people were long-term unemployed (Rothstein, 2016). However, the current number of long-term unemployed is larger than typical, based on historical data (Rothstein, 2016). A result is an increasing number of adults with little or no opportunity for reemployment without education or retraining.

Increased credential attainment is one way to improve the nation's adult workforce skills and an individual's employment potential. Placing emphasis on access and learning innovation in America's educational system translates to economic and social progress.

Opportunities exist for expanding an educated workforce. The National Student Clearinghouse describes those with some college but no degree as potential completers. A

National Center for Higher Education Management Systems (NCHEMS) report estimates over 511,000 Wisconsin adults with no college education are working but living in families with a combined income less than the government calculated living wage (National Center for Higher Education Management, 2010). The same report assesses the overall college participation rate for adults 25-49 at 16.2% which is less than the national average of 18.9% (National Center for Higher Education Management, 2010). The American Community Survey estimates approximately 817,000 (21%) individuals in Wisconsin over the age of 25 have some college but no degree (Educational attainment, 2015). Strategies to increase postsecondary attainment goals, specifically for those who earned college credits but have not completed a postsecondary credential, could benefit from re-engaging adults in degree completion efforts.

While studies and institutions might define adult learners differently, the most common definition is based upon age (typically 25 and older) and with the assumption that these students have delayed enrollment in postsecondary education (Ewel, Kelly, & Klein-Collins, 2008). Adult post-traditional learners are sometimes referred to as nontraditional students, which is defined more broadly to include students delaying their entry to college by at least a year following high school, having dependents, being a single parent, being employed full time, being financially independent, attending part time, and/or not having a high school diploma (Ross-Gordon, 2011, winter). In some cases, adult learners may have completed some post-secondary education, however, did not receive a credential.

Institutions of higher education are deploying multiple strategies to help adult learners succeed. One of the promising practices for adult learners is credit for prior learning (CPL), sometimes also referred to as prior learning assessment (PLA). The concept of prior learning assessment is a process of evaluating learning gained outside the college classroom through

informal and formal training. Credit for prior learning calls attention to the purpose of receiving college credit equivalency for previously acquired knowledge. Adult learners often come to organizations bringing knowledge and skills from their job experience, military training, or self-study in the form of non-formal or experiential learning (Klein-Collins, 2015). Institutions supportive of CPL assess how prior learning experience aligns with identified outcomes and determines credit awarded to students. An underlying theme routinely acknowledged in the literature is an endorsement for rewarding and valuing students' college-level learning regardless of where it was acquired. Recommendations advise adopting innovative methods to support student success in credential attainment to improve career opportunities and wage earning potential.

One of the most cited research studies on the value of PLA is *Fueling the Race to Postsecondary Success: A 48-Institution Study of Prior Learning Assessment and Adult Student Outcomes* conducted by the Council for Adult and Experiential Learning (Council for Adult and Experiential Learning [CAEL], 2010). The report defines PLA as the process by which colleges evaluate knowledge for academic credit. Examples include college-level learning knowledge and skills gained outside the classroom or from non-college instructional programs, including employment, military training/services, travel, hobbies, civic activities, and volunteer service (CAEL, 2010). A separate study conducted by Hayward and Williams after the 2010 CAEL study confirmed improved success rates for adult PLA credit recipients as compared to adult non-PLA recipients (Hayward & Williams, 2015).

Faculty can be critical of CPL. Osman (2004) called to attention that PLA in higher education presents formidable challenges (p. 56). Tasks fall to faculty who are already engaged in full-time work and academic responsibilities and can be seen as costly with regards to faculty

time and energy resources. Research from CAEL confirms that some faculty are concerned about the quality of prior learning assessment (PLA), particularly when it is administered without well-defined policies or standards (Council for Adult and Experiential Learning [CAEL], 2010). Contributing factors may be educators' lack of understanding of the relationship of CPL and the contribution it can make to profession practice (Van Kleef, 2007). Without faculty engagement and establishment of a campus-wide culture promoting PLA, the practice for awarding credit to students ends up falling short (Eisman & Steele, 2015).

Statement of the Problem

Meeting workforce needs will require an increased number of adults to pursue post-secondary credentials. The achievement will require a reinvention of the existing U.S. higher education model, including greater opportunities for previously acquired learning to be used toward degree completion. The problem preventing scaling and adoption of institutional credit for prior learning model is a lack of faculty support and endorsement of credit for prior learning (University of Akron, 2013). Faculty perceptions associated with the diffusion of an innovation directly influences adoption of CPL in an institution. Therefore, the problem is determining what prevents faculty support and endorsement of CPL in post-secondary education.

Purpose of the Study

Credentialing the adult population is critical for the U.S. to reach post-secondary education attainment goals to secure economic prosperity and a desired quality of life. Reinvestment in CPL, offers an innovative academic strategy, to support adult learner credential attainment leading to increased employment opportunity and stability in the American workforce. The Lumina Foundation's 2016 *Stronger Nation* report reveals that by 2025 the U.S. economy will need 10.9 million more Americans to possess post-secondary credentials meeting

workforce demands leading to economic stability. Approximately 7.2 million post-secondary credentialed individuals could come from Americans ages of 25 and 54 who attended college but did not achieve a degree or from those who hold certifications aligned with the workforce (Lumina Foundation, 2016).

Meeting the national workforce imperative is not achievable using the existing lengthy and costly American education model. Prior learning assessment and credit for prior learning can assist currently employed workers to leverage training and skills they already possess and increase degree completion rates by conferring college credit for knowledge and competencies gained outside of the classroom (CAEL, 2010). CPL can save students time and money in credential attainment. Furthermore, findings present an opportunity to advance a model for expanding adult access to education as a means to increasing degree attainment resulting in employment and social stability, and the continuous development of the nation's human capital. The primary purpose of this study, therefore, is to identify what is necessary to gain faculty support and acceptance for credit for prior learning.

Research Questions/Objectives

Three questions in this study explored what prevents faculty acceptance of credit for prior learning in post-secondary career and technical education courses and programs.

1. What factors impact faculty acceptance of credit for prior learning (CPL)?
2. What driving and opposing forces are perceived in the credit for prior learning process as it relates to career and technical education?
3. What do faculty identify as critical when determining how CPL meets course objectives?

Significance of the Study

Change in education is inevitable. However, it seldom transpires smoothly and efficiently. Consequently, adoption of educational innovation may be both time-intensive and challenging. Rogers (1983) asserts that getting a new idea accepted, even if advantages are apparent, is often challenging. A key factor affecting adoption of a new approach is the compatibility with existing values and beliefs of individuals and their experience with the change. Innovations that correspond with past experiences, values, and needs will more easily be implemented while changes requiring adjustments to value and belief systems create opposition.

The process of implementing a PLA system will require fundamental shifts in the way institutions and faculty view their role in an adult learning educational pathway. The implementation of CPL represents an innovation within the educational system since it requires attitudinal change toward the role institutions have regarding credentialing, the role faculty play in assessing evidence, and the ability to view learning from these alternative perspectives. Shifts such as these can be difficult, and resistance or acceptance may be a result of beliefs, ideas, and recognition by the organization and faculty (Wolfson, 1997).

Assumptions of the Study

This research is influenced by the following assumptions that the researcher perceives to be true based on prior experience and professional academic understanding. Four basic assumptions outline the rationale for credit for prior learning in post-secondary institutions. 1) Work and life experiences that occur outside an academic institution result in knowledge equivalent to academic learning. 2) Prior learning assessment can be symbiotic with workforce development and educational advancement without endangering institutional credibility,

credential integrity, or student success. 3) Post-secondary institutions should recognize informal, non-formal, and experiential learning and faculty documentation of learning outcomes and assessments must support the process. 4) Faculty engagement and buy-in are critical to the successful adoption of a CPL strategy.

Limitations of the Study

Limitations of this study are as follows; 1) it relied on a single two-year college with three campus locations, 2) it is limited by its institutional normed practices and array of programs offered, and 3) it is confined to an institutional culture set within a geographic region within the Midwest. An additional limitation presents itself by the decision to incorporate input from college employees who have direct contact with students and the services related to prior and current CPL processes and decisions.

The above-stated limitations are minimized by inviting two offsite campuses and their program faculty into the study. While there is no claim for generalizability made for this study, the context of the study, its quantitative findings and its qualitative data presented through authentic themes resulting from an authentic narrative, contributes to the knowledge that can guide both prior learning assessment and credit for prior learning practices and implementation.

Definition of Terms

Descriptive definitions of pertinent terms related to this study are as follows:

Career and technical education. A term applied to schools, institutions, and educational programs that specialize in the skilled trades, applied sciences, modern technologies, and career preparation. It was formerly called vocational education (Great school partnerships, 2014).

Council on Adult and Experiential Learning (CAEL). 501(c) (3) nonprofit that pursues work at all levels within the public and private sectors to enhance learning opportunities for adults around the world (CAEL, 2016).

Credit for prior learning (CPL). Academic credit granted for demonstrated college-level equivalencies gained through experiences outside of the college classroom (Ryu, 2013)

Experiential learning. The process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience (Kolb, 1984, p. 41).

Human capital. The stock of competencies, knowledge, social, and personality attributes, including creativity, embodied in the ability to perform labor to produce economic value (Boundless, 2016).

Learning outcome. The intended goals of a course, program, or learning experience (Great school partnerships, 2014).

Post-traditional learner. Most often an age-based reference for the population over the age of 24 and which acts as a surrogate variable that captures a large, heterogeneous population of adult students who often have family and work responsibilities as well as other life circumstances that can interfere with successful completion of educational objectives (National Center Educational Statistics, 2013). Other terms include non-traditional learner or adult learner.

Prior learning assessment (PLA). The term used for the various ways higher education institutions assess an individual's learning to grant college credit, certification, or advanced standing in post-secondary education (CAEL, 2014).

Chapter II: Literature Review

This chapter presents a review of selected research and literature and provides the background and conceptual basis of this dissertation. The literature review focuses, first, on an examination of the importance of improving credentialing levels to support the workforce, urgency for increasing middle-skill training, and methods of credit for prior learning (CPL) an essential education strategy for the adult population. Second, the need for change, including a discussion of factors impacting change and innovation in the contemporary higher education landscape are reviewed. The literature on the acceptance of innovation, factors influencing individual adoption of change, and a discussion of the relationship between culture and innovation are addressed. Since the purpose of this research is to examine factors limiting or supporting PLA in post-secondary career and technical education, a review of prior learning assessment methods and identified factors impacting PLA in the academic setting are explored.

Historical Workforce Evolution

The late 19th-century United States is best known for industrial expansion and the mass production of goods by machine. By reducing labor costs, machines not only reduced manufacturing costs but also changed the definition of work and the construct for individual career vocation. In short, machine production created products that were more plentiful, less expensive and with greater efficiency changed the way people worked (Littell, 2002).

Skilled craftspeople of the past had the satisfaction of seeing a product produced from beginning to end. Machines, conversely, subdivide production down into various small repetitive tasks often requiring workers to perform only a particular task. Driven by the capitalist economy, the pace of work became faster, craft guilds declined, and the nation moved from the embodiment of career vocation to a model of work efficiency. Industrialization emphasized

automation and standardization wherever possible, driving the work to the most cost-effective and competent workforce available (International Labour Organization, 2011).

One of the most important features of the capitalist industrialization era is the education system. Policy priorities and the spread of free public education access for the masses provided a pathway link between educational credentials and career choices (Cubberley, 1919). Increased labor market credential requirements affected the very nature of the types of work, the growth education required for particular work, and how and who attained them.

The transition from an entrepreneurial skilled trade model to a corporate factory enterprise system altered the role of education in America. Bowles and Gintis (1976) indicate that changes in the composition of the labor force brought about a rapid increase in public schooling. Education also reinforced orders of social control in a society undergoing cultural and economic change. According to *Schooling in Capitalist America*, the new capitalist class came to dominate the political, legal and cultural policies, which would profoundly shape the education system (Bowles & Gintis, 1976). Shifts in occupational distribution and continuous changes in required skills necessitated a training shift from an apprentice-training model to one that transferred costs to a publicly supported education model.

Public institutions saw a sharp increase in education after 1900, rising from one-quarter to more than one-half by the mid-1930s (Snyder, 1993). Also, the vast expansion of public universities, due to the Morrill Act, helped to increase the popularity of higher education. Beginning at the turn of the century junior colleges, community colleges, and technical colleges were founded to reduce pressure on universities and to respond to aspirations for upward mobility among larger numbers of students (Brint & Karabel, 1989).

The importance of credentials and their value has changed historically. Early colleges, typically founded by religious communities, promoted and maintained particular educational perspectives. As the country grew and prospered, the status symbol for the American elite was a four-year college degree. In the final decades of the 1800's, the Morrill Acts, known as the Land Grant College Act, led to the formation of State colleges and universities (Colleges of Agriculture at the Land Grant Universities, 1995). Increased efforts to expand educational opportunity, particularly to military veterans, economically disadvantaged Americans, ethnic minorities, and women further stratified the educational system resulting in a blending of liberal arts and practical education. The contemporary postsecondary education system includes non-degree programs leading to certificates and diplomas plus six-degree levels: associate, bachelor, first professional, master, advanced intermediate, and research (Structure of U.S. Education, 2008). While a hierarchy of credential attainment exists, its value can be imprecise. The meaning and necessity of education for supporting the economic and social expectations of individuals are often unclear.

For many years, a postsecondary credential was not required to enter the workforce and achieve a middle-class income. However, educational attainment was often cited as the primary indicator of social class in the US (Ehrenreich, 1989) but social class and education levels are not necessarily aligned. Traditionally, the United States advantage over other nations was in producing goods that require a skilled workforce made possible by leveraging secondary and postsecondary education development earlier and more rapidly than other countries (West, 2009). This led to an increased standard of living for individuals. While obtaining higher education is often seen as an important step toward better occupational and economic outcomes, opportunities are not equal.

Career and technical education. Contemporary career and technical education is rooted in the founding of the United States. From the beginning, a strong knowledge base and skill set were considered necessary. With the arrival of the Industrial Revolution in Europe and America, the philosophical foundations of education were evolving to meet the expanding need for skilled labor. The adoption of the apprentice model allowed for workers to gain the required technical skills to increase employment (Rippa, 1971). Association with these principles and practices developed into the basis for career and technical education (CTE). Over time, career and technical education adopted the philosophy as a preparation for career employment in American society.

Economic and social changes prompted increased CTE training. As the economy moved from a farm-based, agrarian to a mechanized industrial economy, increased skills were necessary. In the late 18th century, obsolete apprenticeships gave way to additional formal education in skilled trades (Brewer, 2009). By the early 19th century, a partnership between workforce and the public school system to create a permanent stream of workers with formal, institution delivered training was the model used to meet workforce needs. Early education leaders set the stage for federal legislation related to career education resulting in the introduction of public laws (Gordon, 1999). According to Martinez (2007), inclusive and expansive career and technical education is the basis for developing educational policies that in turn guide instructional practices. This introduced the basic framework for career and technical education.

The 20th century produced a fluctuating definition and scope of vocational career and technical education. Federal legislation to support CTE was deliberated. Congress defined vocational education as the process of preparing for employment through skill-based

development. The 1917 Smith-Hughes Act, the original law, authorized federal funding for vocational education in American schools, explicitly designated as preparation for careers not requiring a bachelor's degree. The career education evolution created both an educational reform movement and an effort to relate education and work (Hoyt, 2005).

The first mass acceptance of career and technical education came after World War I, and the movement spread in the years following. Career and technical education expanded to include adult education and retraining citizens to re-enter the workforce. By the 1970's, jobs requiring just a high school education were beginning to disappear. This information age revealed employer and college involvement in the value and development of high-tech skills in preparation for the emerging knowledge economy (Strong States, Strong Nations, 2014). Technology and globalization increased and the skill levels required for occupations created change and volatility in the workforce. In this sense, human capital has become a crucial ingredient influencing economic strength.

The evolution of the US technical and community college is a twentieth-century occurrence. In a post-World War II era, these institutions differed from other higher education institutions due to their open access design intended to support the rise of the adult and continuing education needs. In comparison, many colleges and universities were established before the secondary education structure existed. With open admission policies and local access, institutions are positioned to expand the scope of higher education to meet education needs for job training and the continuing education of workers in skilled trades and technical occupations (Pusser & Levin, 2009).

Evolutionary transitions observed through the agricultural, industrial, and knowledge revolutions have given way to the modern emergence of an innovation age. Each shift has

impacted requisite skill development to support economic and social expectations as well as workforce demands. With current labor expectations and rapidly changing requirements for enhanced human capital capacities, worker development cycles can no longer rely on four or six-year timeframes to deliver critical skills. Without intervention, the economic dominance the US has come to enjoy may be threatened (Prasad, 2014). Reducing the time required and increasing the skills available for workforce through increased academic credentialing is described as an imperative to the development of a high-skilled workforce.

Importance of Credentials for Middle-Skilled Non-Traditional Learners

Numerous studies highlight our nation's need for more highly educated and better-prepared employees. Improving worker productivity and skill development are essential to preserve economic vitality. According to the Lumina Foundation (2016), demographic changes and trends in post-secondary attainment by traditional-age students will unlikely provide the labor force employers need to grow American organizations and compete in the global marketplace. Aiding adults in increased degree attainment will be critical for the nation's overall talent development strategy. A 2012 Gallop Poll showed growing interest among the public in returning to post-secondary education if institutions granted credit for what individuals already know (Lumina Foundation and Gallup, 2013). Thus, supporting the future adult workforce learner will require institutions to transform traditional education models and implement strategies that recognize college-level learning students bring with them.

At least one year of education beyond high school has been put forward as a minimum standard for each American citizen to attain (Lumina Foundation, 2013; McCarthy, 2014). Higher education's role had been held up as the solution America needs to compete in the world economy. The goal of additional education will be necessary to escalate a competitive

workforce and create a new generation of innovators and entrepreneurs to grow the economy. Many contend that the country must educate and train significantly greater numbers of adult Americans if it is to remain economically competitive. The political focus places emphasis on community and technical colleges who can provide re-training and workforce development.

Over the last two decades, the American labor market has changed from a model where a majority of jobs required only a high school education or less to one which a sizeable majority require some college or training beyond high school (Bozick, 2009; Carnevale & Desrochers, 2002; Carnevale, Smith, & Strohl, 2014). At the same time, labor specialization, assigning specific tasks within a production process to individuals, has increased (International Labour Organization, 2010). While repeated experience offer opportunity for greater efficiency, it also introduces the challenges with motivation and lack of productive engagement in employees (Fischer, 1991). As a result, workers often require less training to be efficient while increased labor productivity and benefits from economies of scale help achieve desired workplace outcomes.

Historically, as society developed more complex divisions of labor economies grew proportionally in both living standards and trade output. Karl Marx' viewpoint was that specialization of labor leads to workers with low overall skills. A complex division of labor was strongly correlated with the rise of capitalism (Nee & Swedberg, 2005). However, the fundamental theorem usually applied to a simple model in which a wage-good ratio is assumed to be uniform across occupations (Lee & Saez, 2012). In the context of more complex models, reliance on increased production and highly developed skills are in equal demand.

By 2020 it is predicted that 65 percent of all jobs in the economy will require postsecondary education and training beyond high school (Carnevale, Smith, & Strohl, 2013).

Labor market projections suggest that, over the next decade, American colleges and universities will produce millions of fewer degreed workers than are needed to meet the demands (Carnevale, Smith, & Strohl, 2013). While more institutions are offering postsecondary education and credentials than at any time in our history, their cost and quality vary considerably and often are inaccessible to the adult learner (McCarthy, 2014). Factors involving finances, access, and shifting workforce requirements necessitate alternative adult higher education models for the United States to retrain and upskill the adult workforce to meet both personal and employment needs. The majority of those in the middle class hold middle-skilled jobs.

Middle-skill jobs, which require education beyond high school but not a four-year degree, make up the largest part of the US labor market in each of the 50 states (National Skills Coalition, 2014). For example, according to the Bureau of Labor Statistics in 2012, 56% of all Wisconsin jobs were considered middle-skill jobs (Bureau of Labor Statistics, 2012). This statistic is consistent with other states across the US. Unfortunately, high stop-out rates, low retention rates, and increased graduation time in credential attainment have negatively impacted middle-skilled workforce preparation. Recent employer surveys found that 60% of companies report that candidates applying for jobs lack the necessary skills to fill available positions (Business Roundtable, 2009) and skilled middle jobs are cited as being the most difficult to fill (Manpower Inc., 2011). Corporate executives worry more about filling middle-skill positions than about finding employees for high-end careers (Seilingo, 2013). Without innovative education strategies to increase credential attainment, those who can benefit most from increased employment opportunities and those who need increased employment development will be excluded from attaining a middle-class level of economic prosperity.

To stay globally competitive in the innovation-based economy, the United States needs to increase its human capital resources by developing the knowledge, skills, and disposition necessary in a manner that supports an innovation and invention cycle (Atkinson & Mayo, 2010; Atkinson & Wial, 2008). Development will likely require the labor force to possess improved post-secondary levels of applied and academic skills. Adults have recognized the impending need for this increased education as a means to acquire a desired middle class supporting career. According to the National Center for Educational Statistics (National Center for Educational Statistics [NCES], 2013) enrollment in postsecondary degree-granting institutions of students who are 25 to 34 years old is projected to increase 20 percent while enrollment of students who are 35 years old and over is expected to increase 25 percent between 2010 and 2021. Education changes are necessary to provide access for this population (Klein-Collins, 2015; Ryu, 2013; University of Akron, 2013).

Economic stability and expansion of workers prepared for middle-skill careers rely on improving the educational access and success of the working age population, those ages 25 and older. These students, who inescapably have acquired skills through non-formal and experiential learning, could decrease the time and money required to achieve necessary credentials. Preparation for available middle-skill jobs, through existing innovative educational models, creates support for credit for prior learning (Wessner & Wolff, 2012).

Theoretical Construct Informing Credit for Prior Learning

Credit for prior learning is positioned as an innovative practice supporting adult learner access to education. For this innovation to gain broad support, an essential mindset for change is required in contemporary post-secondary education. The foundation for this study is guided by the position that CPL is an educational innovation impacted by four prominent, theoretical

frameworks. Applied together as an interrelated system, the theories structure prior learning assessment as having powerful economic and social implications affecting needed support for adoption of credit for prior learning as an adult education imperative. The general structure developed explores the relationship between change theory, diffusion of innovation theory, and social and economic efficiency theory. Figure 1 presents the interrelationship of the theories and the inherent complications affecting constraints and progress in CPL.

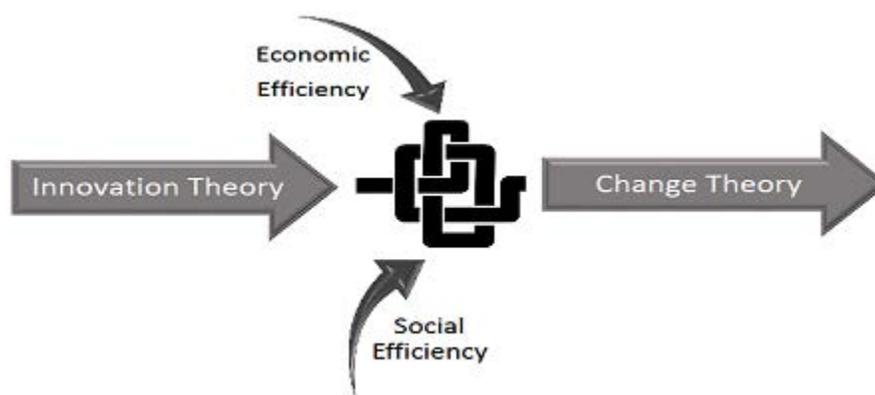


Figure 1. Visual inter-relationship of theories impacting CPL.

This visual representation demonstrates how economic and social factors impact the advancement of innovation resulting in change. The forces create twists and infinite loops restricting advancement of the innovation.

The consensus among experts recommends placing long-term human capital development at the center of the workforce system as a mutually beneficial structure for workers, employers, and our nation's long-term economic growth (Steigleder & Soares, 2012). The most recent congressional update to the US workforce system was the 1998 Workforce Investment Act established under substantially different economic circumstances. The system uses short-term training activities and rapid re-employment strategies, limiting continual development of human capital. Contributions to economic growth come from the improvement of human capital, which is impacted by critical societal inputs such as education (Schultz, 1975).

Conflicting goals in American policy and school system objective, including social efficiency and human capital development, has implications for workforce training (Labaree 1997).

Social efficiency. Social efficiency is defined as the optimal distribution of resources in society, taking into account all costs and benefits. Created by Franklin Bobbit in 1913, the curriculum ideology was based on scientific techniques or production models established and applied in industry. The focus is to develop skills necessary for society's needs. Social efficiency can be seen as a social process that advances generational changes through education as a means to maintain community and prepare individuals for a meaningful life in society. The goal is to develop an improved future society. Although logical, social efficiency may be misguided since it approaches preparation from the standpoint of a current cultural state, economic position, and social problems, infrequently taking into consideration the sociocultural contexts that society will change. Instead of attempting to teach a particular set of skills designed to match demand for individual skill sets in current society, preparing students to be efficient, flexible, adaptive learners in a complex, ill-structured, rapidly changing environment is needed (Spiro, Feltovich, Jackobson, & Coulson, 2007).

In a global era, social efficiency results from physical connections, social relationships, and the ability to see new ideas (Csikszentmihalyi, 1996). The meaning of a learning organization's power is ultimately intertwined with service to others and the greater social good (Winder, 2007). Contemplating social efficiency in the context of a global audience results in a greater system of financial, professional, and social resource and network for improving a nation's global competitiveness (Florida, 2007; Winder, 2007). To accomplish this, education requires a broad emphasis on social goals and issues.

Economic efficiency. Economic efficiency implies an economic state in which optimization of all resource are realized while minimizing waste and inefficiency. The three categories of sustainable capital available, human, social, and natural resources, provide an opportunity for increasing economic strength. Human capital accumulation and enhancement underlies economic and workforce progress. Numerous claims highlight a crisis due to lack of investment in human capital (Fernauld & Jones, 2014; Gough, 2016; Hanushek, 2013). Systems supporting continuous improvement of skill and competence, in human capital, maintain economic efficiency. One universally recognized strategy to enhance human capital is educational attainment and training.

Economists recognize education as a consumer and capital good used to develop the human resource essential for economic development (O'Connor, 2004). Differences in educational attainment by socioeconomic status (SES) have been used to assess economic growth potential. Lower levels of educational attainment are often associated with lower earnings and higher unemployment rates. The recent information technology bubble revealed the urgency of education advancement. Productivity in the 1990's was attributed to the information revolution (Ashford & Hall, 2011) however, Roach (1998) states that information technology productivity impact is just fictional. To contradict negative economic consequences based on human capital limitation, innovation, and training and education strategies to increase human capital capacity are essential.

Credential achievement. With the recent national college completion momentum, the growing labor-force skill requirements, and the need to increase adult employment skills in the workforce, credit for prior learning (CPL) has received renewed national attention as an innovative strategy to achieve the nation's degree attainment goals. Soares (2013) finds students

participating in post-secondary education “encompass many life stages and identities” (p. 2) frequently bring learning experiences from other settings. Adults multiple roles and commitments increase the probability they will look for programs providing flexibility in time and location for both course completion and access to essential student services (Ross-Gordon, 2011). In particular, those entering two-year colleges tend to enter with college-level competencies acquired through work experience (Brigham & Klein-Collins, 2010). According to the journal *Inside Higher Education* (IHE), prior learning assessment (PLA) could be higher education's next big disruptive force (Fain, 2012). Rethinking the adult education landscape offers promising ideas to reach and engage non-traditional student populations essential for growing the nation's skilled workforce.

Adult learners often struggle to fit into a traditional institutional format. Therefore, support for innovative adult education pathways is crucial for increasing life-long learning opportunities and post-secondary participation as a strategy to meet workforce demand. One of the most critical and often controversial aspects of adult education is associated with the awarding of credit for prior learning and life experiences (Tannehill, Solomon, & Yeager, 2008). Institutional terminology and policies often vary across institutions. CPL success, acceptance rates, policies, practices, and credits differ significantly across campuses and assessment methods (Ryu, 2013). A 2014 American Association of College Registrars and Admission Officers (AACRAO) study affirmed that CPL practices and lack of financial support for CPL inhibit momentum and extension of CPL at campuses. Despite initial challenges, clear and transparent CPL information appears critical to supporting adult student access for credit for prior learning.

As institutions struggle to engage adult learners, teaching and learning will be impacted (Chan, 2010; Donavant, 2009; Halx, 2010; Henschke, 2010; Johnson, Wisniewski, Kuhlemeyer, Isaacs, & Krzykowski, 2012). Cross (1981), writing more than thirty years ago, suggested higher education's future challenge would be the development of alternative methods of education to satisfy the needs of the new, diverse, adult population. Selingo (2013) argues that the education model today will need to be personalized for every student. Educator awareness and acceptance of adult theoretical frameworks are crucial to acquire support for PLA as an effective education achievement strategy.

Dewey (1939) considered experience as the primary resource for the learning process. Mezirow (1978) applied theories of transformational learning to describe the adult education process within the adult growth and development framework. His ideas are grounded in the concept that reflection creates meaning from each different situation. Kolb (1981) shared the view that through reflection experience is transformed into knowledge. Jarvis (1987) contended that not all learning involves reflection and as a result revised Kolb's experiential learning model to include skills and attitude thus increasing their application to formal education through the use learning outcomes. As a result, learning outcomes are recognized as a standard of learning that assists in the translation of informal learning theories into assessment strategies meeting defined expectations while still being adaptable to learners' prior experiences (Wong, 1996).

Practitioners and theorist agree that experience does not necessarily produce learning which can restrict credibility and validity of CPL as an educational movement.

One of the distinguishing characteristics of adult learners is the experiences and resulting learning they possess. Although prior learning assessment, in its true essence, is a process for assessing a student's possession of college-level knowledge of a subject, it can be confused with

granting credit for experience only. Documenting, understanding, and connecting what adults have learned across a range of settings and experiences can strengthen their awareness of how and what they have learned, building confidence as learners and most importantly shorten time to and increase the likelihood of degree completion (D'Amico, 2011).

Prior learning assessment seemingly has a natural fit with career and technical education. Similarly, conversation with institutional faculty often centers on what work and experience the student completed. According to CAEL, adults may have experience in technical skills but can lack the theory behind the practice. Respondents in a study conducted by CAEL indicated that CPL was of greater use in their technical field than general studies because assessing a skill is easier than assessing theoretical knowledge (Brigham & Klein-Collins, 2010). The same survey actuated respondents to name career and technical education programs in criminal justice, early childhood education, business, and computers as program areas that would benefit from enhancing CPL opportunities (CAEL 2010). Figure 2 illustrates a model for utilizing all aspects of knowledge acquisition to support economic and social benefit. Awarding college-level credit for knowledge and skills on the front-end for degree-seeking students could create the potential for faster degree attainment resulting in earlier employer access to skilled graduates (Lakin, 2015). Innovation and change are theoretical constructs for the adoption of CPL in an organization.

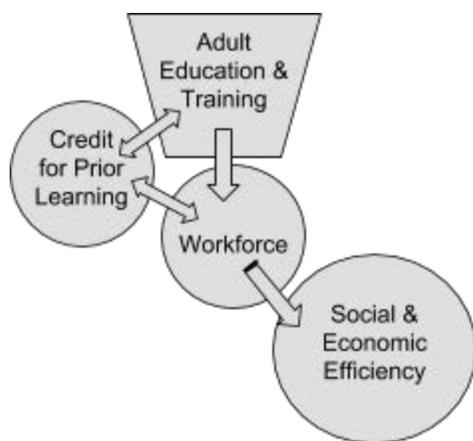


Figure 2. Social efficiency and knowledge acquisition model.

This model explains the connection of adult education, training and credit for prior learning as a necessary link for the workforce as a means to promote economic and social efficiency.

Education Innovation and Change

American education remains fundamentally modeled on an approach hundreds of years old. New and innovative systems to help individuals achieve their potential in education is critical for economic growth. Employers nationwide voice a strong skills gap, and the Bureau of Labor Statistics identifies that by 2020 there will be a million more job openings than trained workers to fill them (Lockard & Wolf, 2012). Pioneering innovations can provide a strategy to accomplish the educational requisite.

Leveraging innovation and change in organizations will require positively influencing the quantities and pace of adoption. Innovation is an idea, practice, or object perceived as new by individuals or a social system (Rogers, 2003). Acceptance of change is impacted by individual or organization beliefs, values, and perceived compatibility based on experiences and social structure. Rogers (1983) alleged that concepts of innovation diffusion are interrelated to both organizational and educational systems as well as to the change process

Change, under any setting or circumstance, can cause resistance. Wagner (2001) suggested that any theory of change must first seek to explain how conditions and capacities for sustaining change are created. Creating a receptiveness to change requires those being required to adopt change to understand underlying reasons for the adjustment. Overcoming the inertia of complacency and resistance is critical to navigating the disruptions caused by innovation and change.

Change in an educational setting places the human factor as a central focus. Kurt Lewin (1951) theorized a three-stage model of change, which included concepts, related to driving forces, restraining forces, and equilibrium. The theory positions behavior as a dynamic equilibrium of forces working in opposing directions. According to Lewin's theory, human behavior is a result of forces due to expectations, beliefs, and cultural norms. These effects can be active, positively influencing behavior, or can be negative, driving away positive behavior. To advance faculty support for change, resulting in the diffusion of innovation, driving and restraining forces must be investigated before implementing a change strategy.

Rogers (2003) offered the following description of innovation: "Innovation is an idea, practice, or project that is perceived as new by an individual or another unit of adoption" (Rogers, 2003, p. 12). Research from a wide variety of disciplines has used this model as a framework. Rogers's theory is an extensively used theoretical framework in the area of technology diffusion and adoption. Relevant to education, faculty who see technology as valuable in their instruction will use it (Buchan, 2014; Doyle, Garret, & Currie, 2014; McKenzie, 2001; Spotts, 1999; Van Braak, 2001). Dooley (1999) mentioned several disciplines including political science, public health, communications, history, economics, technology, and education.

Dissemination and market product penetration remains a consistent topic in studies of innovation diffusion.

Distinguishing between initial resistance and experiential resistance requires consideration. Resistance can be categorized as an innate characteristic; that which we are unfamiliar with is often resisted (Rogers, 2003). In comparison, resistance may be more closely aligned with the nature of change so those seen as having relative advantage impact support and adoption. Most individuals adapt to change based on the subjective evaluation of innovation that has been communicated to them by those who have adopted a particular innovation (Rogers, 2003). The more appreciation there is from the informing individual, the more likely the adoption of change.

Several factors impact an individual's decision to adopt an innovation. Understanding faculty resistance seeks to understand root causes limiting adoption. According to Roger's theory of innovation (2003), the rate of diffusion is influenced by the perceived innovation characteristic identified through five attribute categories.

- Relative advantage, the degree to which the innovation is better than what it is replacing;
- Compatibility, the extent to which the innovation is consistent with the values and needs of the potential adopters;
- Complexity, the extent to which the innovation is perceived as difficult or easy to adopt;
- Trialability, the degree to which the innovation can be experimented with before being adopted;

- Observability, the degree to which results of adopting the innovation are observable to the adopters.

Diffusion research studies how ideas are dispersed between groups of people (Rogers, 1983). Diffusion centers on conditions that are increasing or decreasing the likelihood that members of a specified group will adopt an innovation (Rogers, 1983). In particular, Rogers proposed that for individuals to adopt an innovation, a conscious decision to overcome uncertainty about the product or process is necessary. He submitted that the innovation itself is not enough to convert people. They need to be convinced, through a communication process providing some evidence of future value, that the innovation fits their value system without severely disturbing their existing practices. Innovations in education often vary in the extent to which perceived challenges and benefits compare with existing processes and practices.

Diffusion research studies how ideas are dispersed between groups of people (Rogers, 1983). Figure 3 illustrates a framework to support CPL adoption within an organization. Opinion leaders wield a significant influence on the behavior of individuals, called adopters. One intermediary is the change agent, someone who encourages an opinion leader to adopt or reject an innovation (Infante, Rancer, & Womack, 1997; Rogers 2003). In the adoption process, individuals are characterized by their support as innovators, early adopters, early majority, late majority, or laggards. Diffusion occurring over time typically yields a cumulative bell-shaped adoption pattern.

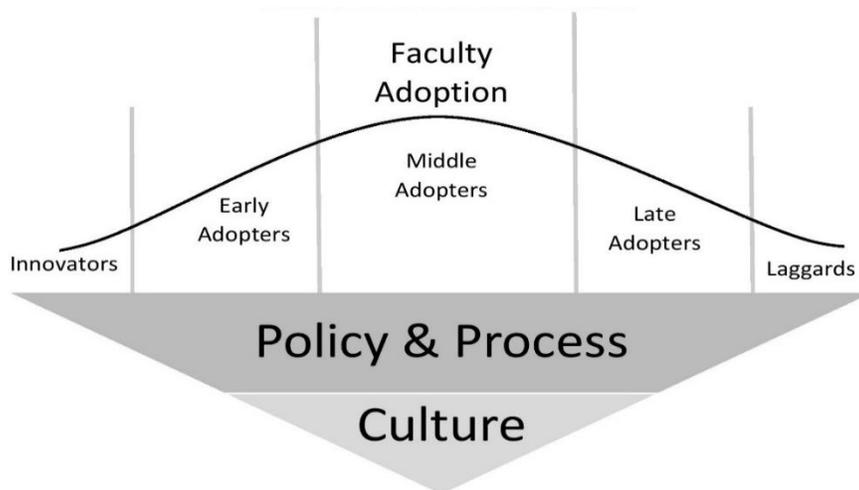


Figure 3. Framework for adoption of innovation.

Faculty adoption of an innovation is reliant upon the culture, policies, and processes supported by the organization. Culture and policy many need to change to take advantage of CPL. Engaging faculty in the change process can provide opportunities for greater buy-in.

Rogers' diffusion model has been widely accepted and is commonly used to explain the adoption and use of technology in higher education. One of the notable criticisms of the diffusion model is the pro-innovation bias (Abrahamson 1991; Rogers 1983). This implies that if the innovation is adopted, it will be equally beneficial to all possible adopters. Therefore, the underlying drawback is the assumption that adoption of the innovation is the right choice.

Individual-blame bias is another critique of the innovation diffusion model. Individuals are blamed for their non-adoption of the innovation (Tidd, 2010). People, namely laggards, reportedly resort to non-adoption, not necessarily due to any individualistic reason. It could be possible that some features of the innovation compel people to be laggards. For example, non-availability of the innovation tools necessary.

The theories framing this study present an overlapping balance between economic and social optimization amidst the interplay of conditions and attributes impacting structure alteration. This theoretical framework together provides a model positioning CPL as an opportunity to optimize human capital resources and improve education attainment for the society. Change and innovation theories represent impacts that can disrupt outcome realization and the rate by which it is achieved. Table 1 recognizes theoretical associations of the construct used in this study.

Table 1

Theoretical Framework

Change Theory	Economic Theory	Social Theory	Innovation Theory
Identifies how and why change is expected	Optimizes resources (human capital)	Optimizes distribution of resources (education access)	Identifies what conditions impact adoption
Focus on what change does and how goal is achieved	Focus on economic strength	Focus on improvement future society	Focus on attributes impacting change and adoption

Organizational Culture

Current transformational and innovative approaches are emerging in post-secondary education. In a recent article by Michael Bassis (2015), two major changes in higher education demonstrate a change is underway. First, colleges and universities are developing new policies, programs, and services to address improvements in education attainment. Second, a growing consensus recognizes a significant transformation in the way US education is delivered and experienced. Supporting adult access requires alternative education models. However, education is often slow to change, and Rich (2006) notes that faculty, as a whole are highly

resistant to change. Credit for prior learning, while not a new idea, has reappeared as a workforce and educational innovation providing increased adult access and academic persistence required to meet the US skilled labor force need however educational buy-in is not yet clearly apparent.

Several studies suggest the culture of the organization is critical in determining how an organization will accept innovation and change. The degree to which innovation precisely align with an institution's goals and strategic directions determines the likelihood for support. Innovations that fit into the constructs and paradigms of the organization will be more readily accepted and integrated however, educational institutions are often categorized as slow to change supporting a culture that remains one with little desire for producing urgency for change (Abdi & Senin, 2014; Hazelkorn, 2015; Silva, White, & Toch, 2015).

Organizational culture plays a significant role in the support and acceptance for innovation. Rogers (1983) talks about organizational innovativeness pointing out that it is often harder to gain acceptance of innovative processes than to accept product innovations. Sustainability of innovation requires clear alignment with an institution's mission and strategic directions. While drivers of involvement can differ across institutions, those that accept innovation are often a consequence of system or institution-wide culture (Lakin, Crandall, Nellum, & Seymour, 2015).

Institutional policies and practices need to be assumed and supported by institutional leaders and staff. Additionally, while higher education institution may have documented policies in place, without the engagement of faculty and the establishment of a campus supported culture, innovation implementation will be marginalized or attain limited success. Lack of a clear framework, inadequate resources, or ineffective leadership creates vulnerability in driving the

needed changes for sustaining organizational practice (Lakin, 2015). Support of leadership, as well as faculty and staff, require an alignment of personal beliefs with organizational goals.

Organizations that cannot change are destined for entropy and failure.

Policy and Process

Recently credit for prior learning has surfaced as an important national strategy for helping increase degree completion and attainment for adults. The Higher Education Opportunity Act, passed in 2011, identified prior learning as an innovative means for improving educational attainment and improving cost effectiveness and efficiency (Washington Higher Education, 2011). As a result, legislation directed the convening of a work group to examine evolving national and state best practices.

As recognized by the January 2013 National Commission on Higher Education Attainment open letter to college and university leaders, prior learning assessment is identified as “an important and emerging strategy for achieving degree completion” (p. 14). CPL also emerged as a strategy in federal regulations and grant programs. For example, in 2010, the U.S. Department of Labor’s (DOL) Training and Employment Guidance Letter 15-10 listed prior learning as a strategy to “help adults and dislocated workers obtain academic credit for independently attained knowledge and skills thereby accelerating the process of credential attainment” (p. 11). Also, four rounds of DOL Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant competitions listed credit for prior learning as a required criteria and possible implementation measure (U.S. Department of Labor, 2013). Contemporary interest in awarding adults credit for already acquired knowledge is receiving national attention.

State system awareness of PLA's value in adult learner degree completion is growing. States including Florida, Tennessee, Montana, Vermont, Pennsylvania, Washington, and Wisconsin are increasingly adopting or considering statewide policies to encourage consistency and ease of transfer of PLA credits (Sherman & Klein-Collins, 2015). Infrastructure problems, particularly federal financial aid, limits use of PLA and will require policy reform. In states like Wisconsin, Tennessee, and Ohio, trends toward performance-based funding for CPL have increased introducing a new focus on required measurement. In some cases, institutions limit PLA use within an organization. Participating institutions in a seminal CAEL study found that initiations limited credit use to specific departments or programs and eighty percent limited the number credits that can apply toward degree completion (CAEL, 2010). Improved collaboration and scalability will rely on state and system advocacy and support for required changes.

It is important to understand how PLA transparency and processes are disclosed. The quality and integrity of a PLA program depend on relationships and processes used to evaluate learning (Travers, 2015). According to PLA focus group findings from faculty and administrators at the University of Akron, fundamental questions about the core purpose of education has been raised (University of Akron, 2013). While evidence supporting PLA value to students remains limited, policymakers, colleges, and employers are increasingly interested in the approach (Erisman & Steele, 2015). A Higher Ed Insights survey found that more than half (55%) of institutions surveyed indicated PLA was vital in establishing services for adult students (Erisman & Steele, 2015). Institutional challenges, including unfamiliarity with terminology and lack of formalized policies and procedures, create barriers for support. Promoting faculty understanding of and engagement with CPL policies, procedures, and assessments through increased student and institutions benefits are needed (Lakin, Crandall, Nellum, & Seymour,

2015). Policy and process development not only improve efficiency but also supports a twenty-first-century college redesign opportunity.

Accreditation. A common argument for an institution's inability to support PLA aligns to restrictions from accrediting bodies. The Council for Higher Education Accreditation (CHEA) describes accreditation as “a process of external quality review created and used by higher education to scrutinize colleges, universities, and programs for quality assurance and quality improvement. In the US, accreditation is carried out by private, non-profit organizations designed for this specific purpose (Council for Higher Education Accreditation, 2017). By design, accrediting agencies are membership organizations comprised of the schools they accredit with the US Department of Education holding the responsibility for authorizing the sanctioning agencies. According to a CAEL research brief, each of the six US regional accreditations agencies reference experiential or prior learning assessment in their guidelines or policies (Sherman & Klein-Collins, 2015). Some claim the nature of the accreditation agencies and its member institutions creates a focus on maintaining and improving excellence in higher education which, by design, reflects support for an educational status quo resulting in rejection of innovations that appear to challenging the quality of education (Armstrong, 2014; Christensen, Horn, Caldera, & Soares, 2011).

Academic, regulatory bodies require evidence of institutional practices assuring the integrity of credentials conferred. CPL research stresses the importance of a high-quality standard for assessing and credentialing prior learning (Erisman & Steele, 2015; Treis-Rusk & Smith, 2014; Fiddler, Marienau, & Whitaker, 2006; Freed, 2006; Nytinga, Forman, & Fox, 1998). Each entity requires assurance that a learner receiving credit as part of the educational process will be adequately prepared for future academic work or employment.

“Real disruptive change in higher education will probably have to wait for an alternative system of accreditation, focused on standards of quality and are not likely without federal government involvement” (Armstrong, 2014, p. 9). In contrast, regional accreditation PLA policies do support institutional prior and experiential learning programs and demonstrate a broad level of acceptance (CAEL, 2014). For example, Middle States Commission on Higher Education (MSCHE) provides twelve principles that characterize effective policies for experiential learning implementation. The Higher Learning Commission (HLC) addresses an institutional oversight in both their Criteria for Accreditation and the Assumed Practices. In all regional accreditation references, the requirement of faculty involvement and review is required as well as a process evaluating and assessing evidence to award credit for prior learning.

Credit hour. In the late 1800's a concept endorsed by the National Education Association provided a standard unit of time indicating how long a student spent on a subject. Beginning early in the 20th century, American secondary school expansion resulted in a rise in the number of students going on to college. Colleges struggled to identify, based on the subject time, what level of preparation, knowledge, and skill was represented (Shedd, 2003). Based on this framework model, Andrew Carnegie converted the course-offering model into time-based units as a way to determine faculty workloads resulting in the standard for credit hours becoming the building block for the course and program requirements known in education as the Carnegie Unit.

Over the last several years, policymakers and the public have questioned the nation's system of higher education. The credit-hour system and the breadth-depth division of curricular labor are categorized as inadequate to the twenty-first-century education needs and challenges (Schneider, 2012). The Carnegie unit, considered the backbone of the American higher

education, was initially designed to account for inputs in the training process. The inputs, faculty contact hours, weeks of instruction, and student work outside of class, became the institutional formula use to design learning credit equivalencies. Institutions have often used the credit-hour count as a proxy for student learning (Klein-Collins, Sherman, & Soares, 2012; Laitinen, 2012; Shedd, 2003). One approach to serving adult students incorporates a focus on competence, acknowledging a student's previous learning and emphasizing performance rather than time in attendance (Maehl, 2000). The underlying premise for PLA is not based on a credit hour system but rather a model that college-level learning can and does occur outside the traditional college classroom, which challenges the credit-based design of academic currency.

The Carnegie Unit, while useful as a calculation for time-based units, was not intended to equate to educational quality or student learning. The standardized nature of credit hours makes them convenient for some critical administrative functions, including determining state and federal funding, setting faculty workloads, scheduling recorded coursework, and determining whether students are attending college full-time (Laitinen, 2012). As noted by Paul LeBlanc (2013) president of Southern New Hampshire University (SNHU), “the irony of the credit hour is that fixes time while it leaves variable the actual learning.” A foundation design allowing faculty and institutions to break from a time-based cycle has not been universally accepted.

Prior Learning Assessment and Credit for Prior Learning

Leveraging knowledge obtained outside the traditional classroom to advance degree attainment is gaining momentum across the nation with higher education’s promotion of adult-friendly programming. At the same time, building a robust program that associates learning experience to education creates challenges. While definitions are often used interchangeably, credit for prior learning (CPL) is the practice used to award course credit, and prior learning

assessment (PLA) refers to the type of evaluation employed in the CPL process (WTCS Credit for Prior Learning Reference Guide, 2017). The intent is to evaluate individuals' knowledge, and skills learned outside a traditional educational system such as workplace employment, military training, civic activities, and volunteer service (CAEL, 2010). Although credit for prior learning is not a new concept, evidence strengthening its support or implementation in the U.S. education system is minimal.

The practice of awarding college credit for knowledge and learning acquired outside the traditional academic setting originated with World War II veterans and the G.I. Bill as a means to earn credit for military training to transition into the civilian workforce. A subsequent evolution continued as the Office of External Degree Programs (ETS), and the Carnegie Corporation explored the broader need for a non-classroom learning assessment process. With funding from the Carnegie Corporation, the non-profit Council for Adult and Experiential Learning (CAEL) was formed to support research advocating adult college-level learning acquisition through experiential learning. Over more than forty years, CAEL has actively endorsed PLA as an international model for improving education. However, little evidence for widespread integration in post-secondary education exists in contemporary education models.

Several authors (Cross, 1981; Long, 1983; Knowles, 1980; Klein-Collins, et al., 2010) refer to prior learning as a viable model to assist adult students in achieving credentials, but explanations serve primarily to describe prior learning assessment models and programs rather than to help educators in effectively establishing credit for prior learning support and integration strategies. Johann Neem (2013) positions a traditional college education as unique with its purposes as intellectual and its ends achievable only through formal, proper academic experiences. Anya Kamenetz (2011), however, claims that students allowed credit through prior

life experience or alternative educational delivery systems have mastered academic, personal skills, and competencies expected of students in traditional settings. From the faculty point of view, the legitimacy of CPL is foundationally based on an explicit connection between effective assessment and student learning.

Four acceptable categories of prior learning assessment methods are acknowledged: national exams, credit evaluations, challenge exams, and portfolio assessment (CAEL, 2010). Based on an internet search, many colleges have some form of Credit for Prior Learning advertised, often in the shape of standardized assessments such as Advanced Placement (AP) and College Level Examination Programs (CLEP). Several colleges offer portfolio options, compiling student artifacts, reflections, and background experiences, connected to course competencies for review (Brigham & Klein-Collins, 2010). These methods provide adult learners opportunities to provide, pass, and prove college-level learning as a result of their life experiences.

According to Ryu (2013), 92% of institutions grant academic credit for prior learning based on at least one of the commonly used assessment methods. In comparison, based on a fall 2012 Institutional Post-Secondary Education Data System (IPEDS) Institutional Characteristics survey, only 27% of two and four-year institutions grant academic credit to a student for learning obtained outside the college classroom (IPEDS, 2012). Although some form of understanding and use of PLA's are evident, it is unclear to what degree institutional support for CPL exists.

The population best prepared to leverage informal, non-formal, or experiential learning are post-traditional adult workers currently employed. Post-traditional learners can be characterized as individuals already in the workforce, lacking a post-secondary credential yet are committed to their goals to further knowledge and skills while balancing work and life (Lumina

Foundation, 2016). According to the American Society for Training & Development, in 2006 companies in the United States spent almost \$130 billion on employee education and development, which equates to approximately \$1,040 per employee. In 2012, the figure was \$164.2 billion, and this following a prolonged nationwide downsizing of the U.S. workforce (Miller, 2013). The investment of \$500 billion in education outside of formal education options and the expanded interest in prior learning assessment indicates the emergence of an ecosystem for learning innovations that encompasses and supersedes traditional education models (Soares, 2013).

Credit for Prior Learning Factors

Changes in education delivery models have made way for the adoption of CPL practice. Variations in content delivery, learning design, and information access has transformed as technology-driven changes enable unbundling of traditional education models (Craig, 2015). Increased access to MOOC's (massive open online courses), online learning, and web-accessible content have expanded knowledge attainment options beyond formal education structures. In addition, growth in supply and demand for certificates, certifications, licenses, and badges emphasizing competence, creates new opportunities to demonstrate learning and proficiency (U.S. Department of Education, 2015). The global reach of learning opportunities facilitates the creation of new prospects for learning acquisition and new demands for learning to be recognized and credentialed.

Faculty. Faculty support for CPL is identified as an essential component for successful implementation. However, acceptance can vary across departments and campuses (Sherman & Klein-Collins, 2015; Travers, 2015). Within institutions, the faculty is designated as the subject matter expert responsible for student learning outcomes and as such are central participants in

determining assessment performance measures. In *Assessing Learning: A CAEL Handbook for Faculty*, Fiddler, Marieau, and Whitaker (2006) presume that faculty acknowledges there are valid and reliable means of assessing learning. Findings indicate that rethinking a traditional assessment practice to meet CPL requests can be complicated (Laken et al., 2015). Categories including faculty acceptance, training, and incentives are identified in the literature as challenging elements in faculty buy-in and engagement. For this reason, faculty opposition appears to be one of the most persistent challenge institutions face.

Faculty opponents have described the process of PLA as a means of allowing the student to gain academic credentials without having sufficient evidence demonstrating learning outcomes. However, proponents of CPL have argued that if implemented systematically, standards will be upheld and learning outcomes will be equivalent to those of students who completed specific course work. Most faculty-based barriers are second-order, dealing with internal factors such as perceptions and beliefs (Reid, 2014). Some institutions have shown support for adoption to a broader range of competency and outcome measurement to meet requirements of students' diverse learning requests and working adult students (Nicol & MacFarlane, 2006). Therefore, increasing opportunities for adult credit attainment through CPL relies heavily on faculty support for the process (Lakin, 2015; Treis-Rusk & Smith, 2014).

The critical nature of faculty buy-in and the establishment of a quality framework for assessment must serve as the concept used to ensure that validating and credentialing practices are supported if the educational change is to be attained. Faculty members can be uncomfortable with the idea of awarding credit for learning acquired outside the institution and need reassurance that the evaluation process is rigorous (Erisman & Steele, 2015; Lakin, Crandall, Nellum, & Seymour, 2015; Treis-Rusk & Smith, 2014). Recommendations including cross-

institutional conversation, gathering information about current PLA availability and the administration, have been identified as valuable methods to educate faculty about what PLA is and how it can be administered with rigor and academic integrity (Sherman & Klein-Collins, 2015).

Fostering an inclusive and intentional strategy for CPL requires building faculty engagement and support. Faculty motivation differs across institutions and is often a consequence of system or institution-wide culture (Lakin, Crandall, Nellum, & Seymour, 2015). According to Wolfson (1997), faculty must believe the change is in their best interest and leadership needs to set a positive climate for change. Faculty are often more receptive to prior learning assessment if they are aware of existing PLA principles and practices (Treis-Rusk & Smith, 2014). Additionally, while institutions may have documented policies, without faculty engagement and a campus supported innovative culture, CPL implementation may be marginalized or attain limited success.

The role of faculty as content expert and assessor plays an important part in the process. The task facing the reviewer is how to set a fair and accurate judgment on the degree to which the presented evidence supports the claims of competence (O'Grady, 1991). Since PLA student evidence may not align directly with regular course activities, faculty need to discern how the evidence supports the current student learning expectations. Issues associated with impact to their jobs, compensation, decision timelines, and limitations in institutional, professional development are acknowledged as negatively affecting faculty support for PLA. It is important to establish an early and continual channel of communication with faculty to keep them apprised of new developments and ensure their buy-in as an initiative takes shape (Klein-Collins, 2015). Consequently, PLA will require institutional involvement and investment.

Costs. Student resources supporting credit for prior learning can create financial barriers to CPL usage. A 2012 AACRO survey found that CPL practices vary widely and are not often eligible for financial aid. Title IV restricts the use of federal financial aid for credit for prior learning. Ohio recently composed a call for federal action encouraging the state and a multi-state collaborative to advocate for federal financial aid criteria, including Veterans Affairs (V.A.) Education Benefits regulations that allow greater flexibility in PLA (University of Akron, 2013). In 2014, the U.S. Department of Education gave PLA a boost by providing federal aid eligibility to colleges experimenting with competency-based education strategies under Title IV funding regulations (DiSalvio, 2014). Removing financial barriers for adults, service members, and veterans, as they pursue postsecondary degrees and credentials, can support institutional interest in providing CPL.

Offering prior learning assessment is not without cost to the organization. Lederman (2010a) in the journal *Inside Higher Education* (IHE) cites reasons for this including, expenses of conducting an evaluation and need for faculty training. At many institutions, CPL is an administrative process that involves faculty only at the final stages of evaluation (Karlen, 2014). Limited professional development and faculty compensation structures further limit faculty buy-in and support for CPL development. Part of the problem is the credit hour, which in most institutions is the building block for faculty workload assignments (Craig, 2015; Klein-Collins, Sherman & Soares, 2010). With current funding challenges facing educational institutions, support for PLA allows both optimistic and pessimistic constructs for allocation of resources, revenue, and expenses.

On the financial side, fear that prior learning assessment will diminish full-time equivalent enrollment, and faculty workload concerns are closely related. The faculty are paid to

teach classes, and the full-time equivalencies (FTE) generated supports institution revenue. Institutions revenue issues are both historical and contemporary concerns for institutions. In states that have implemented outcome based funding metrics, like Wisconsin and Ohio, outcome-funding formulas are determined by outputs. However, PLA can be used a tool for recruiting adult students (CAEL, 2010) that can produce increased revenue from increased persistence and completion rates. Data shows that students do not take fewer credits, but rather tend to take more credits, tend to persist and are more likely to graduate meaning institution will not lose the revenue from outcome-based funding (DiSalvia, 2014).

Definitions and navigation. On many campuses, it is difficult for learners to find out about prior learning policies and practices. Processes and nomenclature can be confusing. The concept of credit for prior learning may be described by different names such as prior learning assessment, experiential learning, alternative credit and many other forms of terminology (Center for American Progress, 2011). Credit for Prior Learning, may be in the form of a nationally standardized assessment such as Advanced Placement (AP) and College Level Examination Programs (CLEP). Several colleges offer portfolio options to compile evidence of background experiences and connect them to course competencies for review (Brigham & Klein-Collins, 2010). The concepts are similar, but can have different meanings and options, and may include credit by exam, evaluation of workplace training, individualized assessments, portfolio development, among other options (Wertheim, 2013). Even after individuals understand the terminology and options, some primary obstacles revolve around simply trying to find which college department offer CPL and navigating the system's process design. Research has identified clear communication strategies and terminology adoption as recommendations to improve access.

Even though there are over 2,000 colleges that offer some form of credit for prior learning, navigating through the collegiate system can be challenging (Ryu, 2013). In some colleges, CPL occurs in academic advising or with transfers. In other systems, CPL may work through an assessment center, or is housed in the veterans' assistance program. Although some form of understanding and use are evident in community colleges, there are often inconsistent practices with minimally promoted opportunities and reduced success rates of students who attempt CPL (Shanmugham & Kishore, 2012). The challenge for students is that PLA is not universally available, such credits are often accepted in limited ways, and the PLA credits are not often accepted in transfer (Klein-Collins, 2015). Each college has a unique set of requirements, and as such, the process can be confusing.

Criteria and standards. Academic standards provide the structure to ensure learning outcomes are met. The identification of five critical factors for the prior learning assessment program are suggested (Hoffman, Travers, Evans & Treadwell, 2009; Travers & Evans, 2010; Travers, 2013). These five areas are institutional mission and commitment, institutional support, program practices, professional development, and program evaluation and improvement. Also, regional accrediting bodies guide institutional PLA practices. Furthermore, The Council for Adult and Experiential Learning (CAEL) has published ten internationally recognized standards for prior learning assessment, as a method of ensuring reliability and quality are maintained (Fiddler, Marienau, & Whitaker, 2006; Whitaker, 1992). The first five, described as academic standards, are directly related to the assessment process.

Stakeholders rely on high-quality evidence to meet assessment standards. Examination of CPL models highlights the importance of high-quality standards for assessing and credentialing prior learning (Freed, 2006; Nytinga, Forman, & Fox, 1998). To this end, the

Council for Adult and Experiential Learning (CAEL) developed ten standards for assessing learning. Urban Whitaker developed these standards from principles developed in the 1970s and published by CAEL in *Assessing Learning: Standards, Principles, and Procedures* in 1989 and revised in 2006. To achieve quality assurance, good assessment practices have a sound conception, effective implementation, and systematic program evaluation (Fiddler, Marienau, & Whitaker, 2006).

One challenge facing PLA is recognizing qualifications and standards for learning that is not explicitly aligned to the existing formal education structure. Consideration for the emergence of entities or systems capable of evaluating different learning experiences for credit-worthiness will be critical (Soares, 2013). In response, institutions have scrutinized the underlying structure framing PLA purposes and practice often to the detriment of student access to CPL.

Academic integrity. Of utmost importance in awarding prior learning, credit is the maintenance of academic integrity. Faculty academic responsibility is to assess learning (Lederman, 2010a). Therefore, the determination of credit awards or competency levels and the types of assessments utilized for PLA and faculty must make the evaluation criteria. Directly matching program curriculum allows for comparing assessment performance with current and past student, therefore, evaluation tools and strategies may differ (Tannehill, Solomon, & Yeager, 2008). Utilization of final course exams or challenge exams are standard tools used to assess learner competence related to in-class learners however faculty may not understand how CPL practices align with assessment practices in relationship to classroom learning (Marzano & Kendall, 2008; Treis-Rusk & Smith, 2014). Incomplete documentation and the lack of objective rubrics allows subjectivity in the assessment process.

Faculty expect academic standards be maintained, ensuring outcomes are met. Faculty members uncomfortable with the idea of awarding credit for learning attained outside the institution may need reassurance that evaluation processes are rigorous (Erismann & Steele, 2015; Lakin, Crandall, Nellum, & Seymour, 2015; Treis-Rusk & Smith, 2014). Research on CPL emphasizes the importance of high-quality standards for assessing and credentialing prior learning (Freed, 2006; Nytanga, et. al., 1998). In contrast, lack of faculty support, attributed to academic integrity and impact on institutional credentials, prevails (Butler, 1992; Harriger, 1991; Klein-Collins, 2015; Merriam & Brockertt, 1997; Wheelanhan, 2003).

Learners expect to bring a variety of formal, non-formal, and informal learning to a CPL process. Evidence must be aligned with the learning objectives and goals required. In a formal learning environment, the organization sets the goal and objectives, while informal learning allows the learner to set the goals and objectives (Cofer, 2000). Consequently, in a formal learning experience, learning professionals, such as faculty and instructional designers, define the goals; while in the informal experience, someone outside of the education profession sets the goals or outcomes. Historically, educational institutions recognized formal learning evidence for awarding credentials more efficiently than other forms of evidence.

Evaluation of student learning requires assessment consistency on the part of the institution (Hutchings, 2010). Loosely defined, four primary methods of assessing learning outside the classroom exist; student portfolios, ACE credit recommendations based on corporate or military training programs, portfolio reviews conducted by individual colleges, and exams used to verify learning attainment (CAEL, 2010; Fain, 2012). Even if students receive credit for prior learning, there is no universal acceptability of PLA by other colleges or universities. Faculty resistance to the institutions and inadequate evaluation documentation processes can

cause a lack of comprehensive support for alternative assessment models. The challenge for students is that PLA is not universally available, portfolio development is time-consuming and ambiguous, credits are often accepted in limited ways, and PLA credits are not often accepted in transfer (Center for American Progress, 2011).

Summary

Educational attainment, an indicator of the human capital accumulated by a population, is a primary contributing factor in a nation's prosperity and social efficiency. Increasing credential attainment supports national workforce competitiveness affirming that in a global economy countries with well-educated workers, able to perform complex tasks and adapt rapidly to their changing environment yield economic stability. To meet workforce employment demands more adult worker with post-secondary credentials will be required.

The literature on innovation suggests diffusion of innovation is impacted by culture and attributes of innovations as perceived by individuals, which help, explain the rates of adoption of the innovation. Changes congruent with existing organizational values and individual's belief structures are more readily accepted. Both culture and organizational leadership play a role in innovation change. Higher education, in general, has been resistant to change and innovations that do not align with faculty perceptions, tend to be rejected as not suitable for the situation.

Higher education is in a period of scrutiny and economic flux. The nature of students and workforce demands are changing. While challenges exist, CPL is one-way educational institutions can advance options for increasing adult learner access and credential attainment to meet workforce needs. A skilled adult workforce is necessary to support economic stability and promote economic growth.

Chapter III: Methods and Procedures

The development of the American workforce is critical to producing economic stability. Improving individual's skills through education and training is a key strategy for maintaining the standard of living the United States desires. Transformative change and innovation in post-secondary education are necessary to create adult access to meet the nation's increased education needs. Post-secondary support of Credit for Prior Learning (CPL), as an innovative adult education strategy, can support increased credential attainment by leveraging formal, informal, and experiential learning to achieve credential attainment. Exploration of factors and perceptions, standard themes addressed in change and innovation literature, can provide insight into support and adoption of CPL as an innovative strategy for increased adult education and credential attainment.

One of the most often named experts in the innovation literature is Everett Rogers who identified five attributes affecting the rate of innovation diffusion. The diffusion of innovation approach recognizes that a variety of factors influence the adoption of a practice. The use of this theory, most often associated with technological adoptions, will provide a framework to identify how the constructs in Rogers (2003) diffusion of innovation theory contribute to CPL acceptance in a post-secondary higher education institution.

The primary purpose of this study, therefore, is to identify what is necessary to gain post-secondary education faculty support and buy-in for credit for prior learning. Three research questions informed the study design and its methodology. The first, RQ1) what factors impact faculty acceptance of credit for prior learning? The second, RQ2) what driving and opposing forces are perceived in the credit for prior learning process as it relates to career and technical

education? And RQ3) what do faculty perceive as critical evidence when determining how CPL meets course objectives?

Research Methodology

This study used a mixed method design. Procedures for mixed methods research have been expanding, along with increasing interest in conducting such research (Creswell, 2007; Tashakkori & Teddlie, 2003). The study design will be informed by phenomenology and employs a sequential explanatory strategy aimed at understanding both the *what* and *why* of the guiding research questions. A combination of quantitative and qualitative research methods aims to gather a comprehensive understanding of faculty perceptions and beliefs supporting or limiting CPL acceptance in post-secondary career and technical education. An inquiry process was used to identify language, beliefs, concerns, and insight related to faculty perceptions of CPL. Surveys, distributed electronically, and a focus group with faculty experts provided data used in the analysis.

Summary of Methods

The mixed methods study used both quantitative survey data and qualitative focus group data including a thematic reduction analysis. Analysis of phase one, quantitative data used Statistical Package for the Social Sciences (SPSS) software. To address the quantitative research questions, means, standard deviations, percentages, independent sample t-tests, logistic regression and MANOVA analysis were conducted with appropriate data variables. Quantitative data analysis for internal consistency and reliability of the researcher developed survey tool was done by calculating the Cronbach alpha on attribute categories. Results showed minimal change in overall Cronbach alpha scores when comparing pilot test results with the population survey results (Appendix D).

Rogers's theory of innovation was used as the primary theoretical framework to explore the driving and opposing forces impacting faculty perceptions in credit for prior learning. In this research, CPL was considered an innovation that can increase adult access to and persistence in higher education. The five factors identified as affecting the innovation (credit for prior learning) are; relative advantage, complexity, compatibility, trialability, and observability (Rogers, 2003).

Quantitative research. Surveys can be used to gather data at a particular point in time with the intent to: describe the nature of existing conditions, identify standards against which existing conditions can be compared, or determine the relationships that exist between specific events (Cohen & Manion, 1989). Standard survey types include structured or semi-structured interviews, self-completed formats, and attitudinal scales.

Phase one of the study employed a survey. A rank-order question with twelve factors and twenty-nine Likert item survey questions aligned to one of the five attribute dimensions were used to gain faculty insight into credit for prior learning beliefs. The study's pilot survey was tested with nine full-time faculty members from the survey population. Participants represented three academic areas; Business and Information Technology, Health Science and Education, Trades and Engineering Technology. They were selected based on their participation in the institutions CPL cross-functional team and their interest in the topic. The CPL cross-functional team faculty acted as the pilot sample for initial survey testing because they were relatively easy to recruit and served as a homogenous group of people with many similarities in demographic terms but would still be comprised of unique individuals.

The pilot survey was distributed via a personalized email invitation, including a Qualtrics survey link. The invitation included a brief summary of how data would be used. An embedded

request seeking critical feedback included inquiry into; ease of use, understandability, relevance, wording, grammar, spelling, readability, and flow. The pilot survey provided face and content validity. Based on verbal and electronic recommendations, modifications in wording changes for two questions and direction clarity for one question were made. Changes were verbally discussed and reviewed with four members of the pilot group sample to affirm final changes before full distribution to the survey population.

The full population survey invitation was sent one day before survey distribution via the College email system. Faculty received a preliminary email invitation from the institutions Vice President for Learning to each faculty member via the college internal email system (Appendix A). The invitation included information on why the survey was being conducted, what results would be used for, where the survey would come from and the survey subject line identifier. The survey was sent one day later via Qualtrics on Wednesday, March 29, 2017 (Appendix B). The population distribution list was entered into the Qualtrics system providing distribution automation and follow-up reminders. Two prompts, sent in one-week intervals after the original survey distribution, were used to spur survey completion. The survey was available for three weeks. The survey was sent to all full-time, benefit eligible faculty at the institutions three-campus locations.

The survey selection is based on the inquiry purpose, the population focus, and resources available for distribution and collection. Determination of the sample population, word clarity, and instrument validity should be considered. Generalization of findings will be impacted by question ambiguity (Creswell, 2007). Follow-up and nonrespondent strategies are needed to ensure sample size and appropriate response rates are met. A moderately high survey response rate minimize the possibility of response bias, which is when “responses do not accurately reflect

the views of the sample and the population” (Creswell, 2012, p. 391). Providing a cover letter explaining the survey purpose should accompany the survey, and several design models recommend the use of incentive to increase completion rates.

Total population surveying, as opposed to sampling selection, may help ensure the research population is representative of the total population. Differences can exist between non-respondent and respondents. Considerations related to population and sample can affect the generalization of the data to the identified population (Creswell, 2007).

Survey research lends itself to probability sampling from large populations. A sequence of procedural steps is used when conducting survey research. First, a target population, is identified. A survey method and sampling frame are determined. Construction of a valid and reliable survey is constructed, and a sampling plan is developed. Validity and reliability are achieved by piloting, revising and implementing required modifications. Generalization of the survey data will rely on the construct validity of the questions described as the degree to which the question measures what is intended to be measured (Cooper, Hedges, & Valentine, 1994). According to Weisbrug, Kronsnick, and Bowen (1996), the agreement of words between the survey writer and the assumptions of the respondent need to be consistent with the researcher’s intent.

Pilot testing ensures content accuracy and importance of topic (Andres, 2001). The pilot results may prompt design modifications before full-scale deployment. To avoid validity and reliability concerns, pretesting the instrument with an expert panel before use is considered best practice.

Qualitative research. By design, qualitative research detaches the researcher from the phenomena using objective methods of data collection and analysis (Gall, Gall, & Borg, 2003).

An open-ended, predesigned inquiry approach invites further probing into faculty views on CPL factors, concerns, and awareness to understand why certain beliefs are held. Strauss and Corbin (1998) describe the interplay between researcher and data acknowledging there is subjective selection and interpretation in the process. Consensus methods are intended for problem solving, idea-generation, or priority determination. A thematic-consensus process was used to achieve a concise set of themes based on a three-stage reduction process.

As described by several writers (Cohen & Manion, 1989; Creswell, 2007; Gall, Gall, & Borg, 2003) qualitative methods provide a wealth of data not provided with quantitative methods. Specifically, the use of qualitative methods allows for the utilization of a phenomenological design approach defined as “a theoretical point of view that advocates the study of direct experience taken at face value and one that sees behaviour as determined by the phenomena of experience rather than by external, objective and physically described reality” (Cohen & Manion, 1989, p 31). The phenomenological design approach is used to investigate how subjects make order and sense of their environment.

A criticism of qualitative methods is that definitions of meaning may be imposed on the subject by the investigator. This can result in subjective statements and misleading results based on the researchers' level of skill and expertise in the research approach. Van Manen (1997) describes the process needing to remain ethical to the subjects intended response meaning. Reading and interpreting through a pre-reflective lens needs to be the goal when interpreting the respondents' intended communication (Haltinner, 2008). The use of qualitative research provides an opportunity for the researcher to understand actions and meaning of the individuals as opposed to seeking behavior causation.

Analytical methods are used to coalesce the focus group discussion into a collection of manageable and useful data. Data reduction is key to the analytical stage. Giorgi (2009) provides a process involving transformation tables facilitating text reduction by identifying themes. Miles and Huberman (1994) recommend employing coding to analyze and make sense of constructed responses. Aligning results with the research purpose is an essential element of highlighting findings.

The qualitative study design incorporated the focus group inquiry technique. The focus group provided insight into the phenomena being studied. The economy is an important benefit of focus groups as compared to individual interviews. Additional advantages are group interactions and non-verbal communications. Importance is placed on facilitator abilities, facilitation skills, and clear purpose.

Analytical methods are used to amalgamate the focus group discussion into a collection of manageable and useful data. Data reduction is key to the analytical stage. Giorgi (2009) provides a process involving transformation tables facilitating text reduction by identifying themes. Miles and Huberman (1994) recommend employing coding to analyze and make sense of constructed responses. Aligning results with the research purpose is an essential element of highlighting findings.

Quantitative Method

The qualitative approach (Phase one of the study) was employed to examine CPL using a descriptive survey with question items eliciting input through a rank-order and Likert scale design. This design allowed for predictive and parametric inferential statistical analysis across research questions one and two to better understand factors and forces impacting acceptance of credit for prior learning.

Volunteer focus group participants used in this study, self-identified through a final quantitative survey question. Names were collected and a meeting date and time were scheduled. Each participant received a personal invite followed by an electronic calendar invitation used to affirm participation acceptance. A reminder email, sent one week before the scheduled event, reaffirmed participant availability. A ninety-minute focus group event was held at a convenient campus location.

Following the focus group, a thematic reduction resulted in meaning units and salient themes identified from focus group proceedings. Recorded transcripts were listened to, transcribed, read, and coded by the researcher. Video and audio recordings were watched and listened to (watching and listening only). The researcher using a transcription headset playback tool transcribed the audio recording. A word document transcript was produced. The transcript was read (reading only) and reviewed for accuracy by listening to focus group proceedings while reading the transcript. Text was reviewed while watching the video recording providing an opportunity to add visual descriptions of participant's gestures or other visual cues used during the event. A separate coding sheet, drawn up to maintain the original name and comment associations, was developed and stored securely. Names, extraneous words, and redundant information was removed.

The thematic reduction was initiated one week after the focus group event to minimize researcher bias. A four column-recording document supported the thematic reduction process. The initial reduction step was ensuring anonymizing participants by allocating each of them a pseudonym and identification codes to differentiate (person A through H).

Extraneous words and redundant information were removed during the coding process. Meaning units, consisting of common ideas or importance topics aligned to each inquiry

question, were identified. Faculty insights and authentic text were identified as evidence. Each meaning unit was recorded and salient themes generated. Researcher reflection provided theme identification. Five contemplative questions guided the thematic reduction process such as: What is happening here? What is trying to be conveyed? What are the similarities? What are the differences? Identified themes were recorded on the recording tool.

Subject selection and description. The population for the quantitative study (phase one) consisted of 262 full-time, benefit eligible academic faculty employed at the selected institution and whose primary workload is a career and technical education credential. Academic department categories followed institutional department organization titles including; Business Information Technology, Health and Education, Public Safety, Trades and Engineering Technology, and General Education. The non-probability population relied on self-reported voluntary responses for data collection. Solicited input from all members of the population defined as full-time, benefit eligible faculty at the selected multi-campus institution was requested. The availability of a complete sampling frame existed since the entire college population is known and a list of exact faculty institutional email address is available.

Instrumentation. To support a researcher-developed survey instrument (see Appendix B) based on Rogers's diffusion of innovation theory, literature research and faculty input was used to identify CPL factors impacting adoption (Rogers 1983, 2003). Faculty input and feedback was solicited for the pilot survey from nine full-time faculty members participating on the college credit for prior learning advisory committee. Faculty validated the survey language and directions before survey distribution to the population. Faculty included in the pilot group were removed from the full population survey distribution list. The final survey tool was distributed to the entire full-time, benefit eligible faculty population of the college.

The quantitative survey instrument was administered to a small pilot group of faculty and analysis of response data was reviewed. Field-testing with a pilot group of faculty was used to determine clear questions and assure simple directions were communicated. To ensure survey reliability and validity, a review process was utilized. Selected individuals with expertise in survey research and design were consulted, and input was used to modify the instrument. The researcher developed the survey instrument since no existing tool was found that adequately measured the research questions of the study. The instrument was assessed for internal consistency using Cronbach's alpha.

The instrument used both order ranking and five-point Likert-style questions for the survey. An agreement scale (5-Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree, 1-Strongly Disagree) was selected. Content validity was established through the examination of the subject domain literature and use a panel of faculty experts to review the instrument.

Likert scales are used to measure perceptions of respondents concerning the concept under measurement. Likert (1932) developed the principle of measuring attitudes tapping into the cognitive and affective components of attitudes. Likert scales use fixed choice response formats and are designed to measure attitudes or opinions (Bowling, 1997; Burns, & Grove, 1997). However, the validity of Likert Scale attitude measurement can be compromised due to social desirability (Paulhus, 1984). Offering anonymity on self-administered questionnaires should reduce social desirability bias.

A Cronbach's alpha calculation determined internal consistency and reliability of the 29 topical statement Likert-scale items with a five-point level of agreement or disagreement scale. The alpha values identified in Appendix D indicate strong internal consistency among the five attribute dimensions from Rogers (2003) innovation theory. This correlation coefficient falls

within the range reported as acceptable for social sciences research, i.e., between 0.70 and 0.95 (Tavakol & Dennick, 2011).

The survey instrument was distributed to the survey population. An electronic invitation, encouraging participation, was sent from the Vice President for Learning to the entire faculty population at three campuses locations. The survey was deployed directly to each faculty email address one day after the initial invitation. Two system delivered reminder emails, sent one each week were sent to encourage participation. The survey was available for three weeks after the initial distribution date.

Data collection. A research timeline for the collection phase was developed (See Appendix C). An electronic survey was sent to each email address via the Qualtrics survey system. Background information included the study purpose and how data would be used. Reminders were sent to all non-completer participants via two follow-up email reminders, sent in one-week intervals, seven days and fourteen days after the initial survey distribution. The survey was designed to answer research questions one and two and was distributed to faculty at a single, multi-campus Midwest technical college via the institutional email addresses supplied by the human resource department. Fowler (1993) suggest an individual with an interest in the subject and no actual literacy issue can expect a return rate of 40% to 60%. A response rate in this range was achieved.

To ensure the survey instrument was clear and the proposed procedure had merit, a pilot study was run with a small, convenience sample drawn from faculty participating in the institution's CPL advisory committee. The pilot-group response rate was 100%. A closing request solicited recommended survey modifications.

Participants received an email from the institution's Vice President for Learning requesting participation. The email shared why faculty were asked to participate, the tool being used (since it is different from the typical college survey tool) and the email message subject associated with the survey (See Appendix A). Within the survey, participants received an explanation of the purpose of the survey and a brief CPL definition to frame the survey questions. In addition to survey questions, each participant was directed to indicate basic demographic information. Specifically, faculty were asked to indicate their gender, subject area (Business, Health, Public Safety, Trades, General Studies,) and the years they had been at the post-secondary institution (< 1 year, 2-5 years, 6-9 years, < 10 years).

Using a list of factors, identified from the literature review and preliminary interviews conducted with faculty, participants were asked how important each identified factor is to acceptance of credit for prior learning in a course or program. Respondents were asked to rank-order twelve factors from most important to least important. Next, participants were asked to rate agreement with statements related to CPL aligned to Roger's five attributes of innovation. This was accomplished by using a five-point Likert-style survey with an agreement scale (5-Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree, 1-Strongly Disagree). Content validity was established through the examination of subject domain literature and used a panel of faculty experts to review the instrument.

The survey was administered to the population, with two follow-up reminders sent to non-completers. Since the research instrument is a Likert item survey, internal reliability was established using statistical analysis through a coefficient of reliability function to determine the inter-item correlation of responses.

Data analysis. Descriptive statistics are used to summarize factors impacting acceptance of credit for prior learning at a multi-campus post-secondary technical college. Descriptive quantitative data illustrate statistical mean and standard deviation. Inferential statistics were used to identify associations or differences in CPL factors related to experience with awarding CPL. Additionally, inferential statistics compared dependent variables impacting perceptions related to CPL.

RQ1, what factors impact organizational acceptance of credit for prior learning, utilized survey data. Rank-order data used descriptive statistics organizing, summarizing, and tabulating data using percentages, means, and standard deviations. Presentation in the form of a table provided visual communication of results.

RQ2, what driving and opposing forces are perceived in the credit for prior learning process as it relates to career and technical education, used survey data based on five key attributes of innovation associated with Rogers's diffusion of innovation theory. Questions were analyzed using ordinal and interval data. Use of an Independent-t test analyzed the dependent variable, CPL experience, to more than five independent variables (innovation attribute dimensions). Analysis used Likert scale interval data to identify attribute significance. Logistic regression was used to explore relationships between the bi-variate dependent variable, CPL experience, with two attributes found to have significance (advantage and compatibility) in the independent-t-test. A MANOVA was used to compare two independent variables (acceptance and compatibility) to dependent demographic data variables of academic department with six levels and years of teaching with four levels.

Procedures employed. In section one of the survey, participants were asked to identify if they had previously awarded CPL to a student (experience with CPL). Response options were

yes or no. Measures of central tendency, using interval data, were computed to summarize data between faculty with CPL experience and those without CPL experience.

In section two of the survey, rank order results were used to identify factors most and least important to faculty acceptance. Respondents ranked twelve factors from most important to least important. Descriptive data explored research question one, what factors impact faculty acceptance of credit for prior learning.

Quantitative survey data collected encompassed both ranking and Likert-item rating scales. The data gathered provided an opportunity for descriptive and inferential statistics analysis of two research questions. Additionally, focus group participant's self-identifying willingness to participate in phase two of the study, yielded qualitative data to strengthen information collected from survey results informing research question three. A thematic reduction process was utilized to identify enduring themes. The survey results, integrated with the information gathering process using a faculty focus group and thematic reduction process, explored insights related to criteria and evidence through the lens of the faculty.

In section three of the survey, Likert scale items were used to address research question number two, what driving and opposing forces are perceived in the credit for prior learning processes as it relates to career and technical education. A composite score was calculated by averaging the attribute responses of associated question items. The composite scores ranged from one to five, with higher scores indicating more positive perception of the dimension. Descriptive data, shown as percentages, combined composite categories into three groupings. Category one joined agree and strongly agree, category two comprised the response for neither agree nor disagree, and category three combined scores for disagree or strongly disagree.

Statistical analysis mean values were calculated to answer survey question two. An independent-sample t-test was conducted to compare attribute dimensions between those with CPL experience and those without. Lavene's test for equality of variances ($< .05=p$) determined that equal variances were assumed.

Logistic regression (Agresti, 2002) was used to establish if a relationship between the dependent and independent variables exists. A p-value less than 0.05 indicated significance. Odds ratio estimates for independent variables were computed. Logistic Regression was used to determine whether experience with CPL can be predicted based on perceptions of compatibility and advantage (i.e., where the dependent variable is prior CPL experience", measured on a dichotomous scale "yes" or "no" and two independent variables "compatibility" and "advantage).

A multivariate analysis of variance (MANOVA) was conducted to measure the strength of the relationship between compatibility and acceptance with academic department and teaching longevity. MANOVA measures the strength of the relationship between multiple dependent variables and multiple independent variables (Johnson & Wichern, 2002). Pillai's Trace was used to show if statistical significance exists between dependent and independent variables. As suggested by Olson (1976), Pillai's Trace statistic is more robust than other multivariate statistics and was used to test the hypotheses that the independent variables are associated with the dependent variables. A p-value < 0.05 indicated significance. Box's M test was used to test for homogeneity of the variance-covariance matrices (p-value > 0.05 indicating homogeneous variance-covariance matrices). Multivariate tests on variances (one for each dependent variable) was conducted to investigate the effects of the independent variable on each dependent variable.

Qualitative Method

The qualitative research design (Phase Two of the study) sought to yield insight and clarification through an open-ended inquiry method aimed at understanding faculty perceptions

related to credit for prior learning evidence in post-secondary career and technical education courses and programs. It seeks to bring meaning to the situation and identify criteria critical for the meeting course outcomes in CPL.

Subject selection and description. The qualitative focus-group subject sample was drawn a subset of quantitative respondents through a final survey question soliciting participation in a future focus group event. The survey completers self-identified a willingness to participate. Norton's (1997) facilitation method for Developing A Curriculum (DACUM), type facilitation model, was employed as the qualitative investigation process. The focus group model required five to twelve faculty members. The DACUM facilitation model leveraged expert workers (faculty) to describe and define their job more accurately than anyone else (assessment of learning). To be performed appropriately, tasks involved in faculty evidence determination required certain knowledge, skills, tools, and behaviors. Participation selection was based on date and time availability of the respondents while meeting participation requirements. Participation acceptance was requested and secured.

Instrumentation. The outcomes of the first phase were used as the basis for a second phase using a focus group design approach. The focus group instrument consisted of five open-ended questions. While surveys provide valuable data regarding attitudes and attributes, deeper understanding often requires listening to the opinions of others in a small and safe group setting before thoughts and opinions can be made clear (Norton, 1997). The qualitative instrumentation tool, in the form of a script, was designed with open-ended questions leading to follow-up inquiries. A small group of eight faculty, identified as appropriate by Norton's DACUM facilitation model, were led through an open discussion by the researcher. The group should be large enough to produce rich discussion but not too broad that it leaves some participants out

(Norton, 1997). A ninety-minute discussion was planned to keep a productive discussion without causing an extreme time imposition on faculty participants. Participation was based on volunteer availability.

Six carefully constructed, predetermined questions, framed the free-flowing discussion (see Appendix E). Ideally, participant comments stimulate and influence the thinking and sharing of others. Each question was focused on one dimension, unambiguously worded in a way that could not be answered by a simple yes or no response. The use of engagement, exploration, and exit question types were employed.

Data collection. The qualitative phenomenological approach used in phase two sought to explore what faculty identified as critical when determining CPL course outcomes. Fifteen self-identified participants identified interest through a final quantitative survey question. Participants provided their first and last name to self-identify (See Appendix A, question 12).

A research timeline for the collection phase was developed (See Appendix C). Self-identified participants received an email, sent using the blind copy (BCC) function, as the preliminary invitation. The email included the research question being discussed and two proposed dates and times for the event. Subsequently, two invitations were sent, via an Outlook calendar invitation, to all fifteen potential participants. Participants were asked to accept the date they preferred. Neither date worked for all individual participants. However, one date and time did accommodate twelve of the fifteen participants. The calendar invitation was updated with a room location to accommodate the group. Based on calendar invitation tracking, four participants accepted as tentative and eight confirmed acceptance. One day before the scheduled event a calendar reminder was sent to each participant. A thank you email was sent to those that were unable to attend.

A comfortable room, at a college campus location, was scheduled for attendee convenience. The room had a door for privacy and comfortable chairs to seat a twelve people (See Appendix H). The researcher assumed the role of moderator, and a designated assistant took notes and ran the recording device for the session. Both the moderator and the assistant observed and recorded key ideas, body language, and other participant descriptive details. Audio and video recording technology was used to capture input.

All participants completed a consent form (Appendix G) as part of the research study per required research protocol. Once paperwork was complete and collected, the moderator used a prepared script to welcome participants, reminded them of the purpose and set ground rules for the discussion. The inclusion of an icebreaker was used to increase comfort and promote initial conversation (Norton, 1997).

The moderator was responsible for adequately covering all prepared question in the time allotted. The moderator was also responsible for engaging participants in discussion and pursue clear explanations using helpful probes. Examples probes employed were phrases such as; based on your experience, can you give me an example, and help me understand what you mean were used. The moderator practiced paraphrasing and summarization to demonstrate active listening and comment clarification.

Since the moderator may be considered an authority, refraining from adding comments, physical or verbal signs of affirmation or denial of comments was required. At the session conclusion, the moderator thanked participants for their time and input. With the room clear of participants, the moderator and the assistant completed the session debriefing.

Data analysis. The focus group acquired data, in the form of text, ideas, gestures and faculty opinion information, was reviewed, and a narrative description was developed to

summarize contents. Video and audio transcripts were viewed twice before audio transcription. The transcript was reviewed for accuracy against the audio recording and corrections to the text file was made. The video recording was subsequently used to identify gestures and personal interactions of participants. Manual transcription by the researcher was used as an intentional process to gain deep meaning and understanding from the dialog. Appendix F provides a sample of the transcription including elements of the thematic reduction method used for coding and identifying ideas and concepts from the group discussion.

The thematic reduction process informed by Giorgi's (2009) reduction model, moved through a three-stage reduction process to develop themes (enduring and sub-themes) to arrive at findings. Checking for co-occurrences and meaning frequencies was used to develop a graphical data display. This interpretation allowed the researcher to simplify the prominent themes. Figure 4 provides a framework through which the thematic reduction can be understood.

Transformation A	Transformation B	Transformation C	Transformation D
Transcribe, listen, and read raw text	Eliminate superfluous words and clarify meaning	Sort and code common ideas	Declare Theme

Figure 4. Thematic reduction model.

Thematic reduction is a common method for determining meaning from qualitative data. The coding and reduction process was employed to methodically arrive at the composite meaning in an attempt to minimize researcher influence on the findings.

Data collection context and setting. A conference room provided the location comfortably accommodated ten individuals for the focus-group interview (see Appendix H). The corner window allowed a wash of natural light that brightened up the atmosphere for the mid-day event. The room lighting, enhanced by natural light, was bright and inviting without being harsh. The contemporary, rectangular conference table held ten comfortable, modern black mesh-backed chairs with cushioned seats, four on each side and one at the end near the door. An additional chair, set back slightly into a corner of the room, provided seating for the assistant. At the end of the table, opposite the facilitator's chair, was a sleek, black, wall mounted, 52" flat screen monitor (See Appendix H).

The facilitator prepared the room with required focus group items. Two copies of the IRB approved informed consent form (See Appendix G) were placed in front of each participant chair along with a blue pen. On top of each form was a complimentary Buzz coffee card for the College's coffee shop, a small thank you for participating on a Friday afternoon. A bottle of water was placed near each participant's materials, and a bag of miniature chocolate candy bars was scattered along the center of the table.

Five minutes before the start of the event, participants began to arrive. The facilitator, standing just inside the doorway, greeted each participant. As each participant arrived, they were asked to take a seat where they felt comfortable. Once all eight guests were seated, the facilitator welcomed the group and introduced herself and the assistant. Each guest was asked to make themselves comfortable. Participants were invited to review the informed consent document (See Appendix G) and if still willing to participate, were asked to sign both copies, one for their records and one to be collected by the facilitator. Participants were reminded that the event would be audio and video recorded. The moderator started the video and audio equipment integrated into the large flat screen monitor at the opposite end of the table. Once recording technology was started, the video recording screen was quickly replaced with the PowerPoint prepared for the event. This transition was intended to eliminate the visual appearance of video recording equipment as a way to create a more comfortable environment for the participants. Simultaneously activated audio recording technology did not have a visual presence that required concealment.

The facilitator efficiently brought up the prepared PowerPoint presentation used to guide the ninety-minute discussion. Each slide design used a simple and eye pleasing blue background with contrasting text displayed in white type. The first slide provided the definition of credit for prior learning utilized in the quantitative survey. The slide was used to provide context to the focus group topic. The next slide presented research question three, to give context to the interview questions to follow. During the next eight minutes, each of five guiding questions were presented to the participants. One-by-one, each question was read to the group, and collaborative and engaging conversation followed.

To address the third research question, open-ended questions guided the discussion seeking to understand perceptions from the faculty member's point of view. Specifically, the questions focused on how CPL course outcomes are determined. To analyze the research questions, transcribed responses were methodically read and reviewed to discern collective ideas that surfaced from participant responses. This was done employing the thematic reduction process that resulted in enduring and subthemes defined by Giorgi (2009).

Summary

There were three research questions pertaining to the study's purpose. The research design, population, data collection and data analysis procedures were described. By following the strict guidelines presented in this section the study design, its procedural processes and adherence the data sense-making the study aimed to increase the power of its findings across both quantitative and qualitative methods.

Chapter IV: Presentation of the Findings

The purpose of this study was to identify what prevents faculty support and buy-in for credit for prior learning. According to the Lumina Foundation (2016), demographic changes and trends in post-secondary attainment by traditional-age students will unlikely provide the labor force employers need to grow American organizations and compete in the global marketplace. Aiding adults in increased degree attainment is critical for the nation's overall talent development strategy.

Three research questions structured the study design its instrumentation and data collection. The first, 1) what factors impact faculty acceptance of credit for prior learning? The second, 2) what driving and opposing forces are perceived in the credit for prior learning process as it relates to career and technical education? Third, 3) what do faculty perceive as critical evidence when determining how CPL meets course objectives? Two goals drove quantitative data collection and the subsequent data analysis. The goals were 1) to develop a base understanding of factors affecting faculty acceptance of credit for prior learning (CPL) and 2) to explore the driving and opposing forces affecting CPL associated with the diffusion of innovation theory identified by Rogers (2003).

Findings

The population for this study was drawn from a multi-campus, Midwest technical college. The survey population included the institution's five academic departments including; Business Technology, Health Science and Education, Public Safety, Trades and Engineering Technology, and General Studies. Faculty included in the sample were all considered full-time, benefit eligible during the 2016-17 academic year by the institution's human resources department.

Demographic profile. Phase one of this study involved 262-faculty members meeting the specifications for subjects and who were invited complete an electronic survey. Nine faculty members included in an initial pilot survey were removed from the distribution list, and pilot data were not included. The remaining 253 faculty participants were used as the sample for survey distribution. At the end of the three-week timeframe, 173 surveys were started and 143 completed, which presents a completion response rate of 57% of total invited participants. Table 2 contains gender of survey respondents.

Table 2

Gender of Survey Population Respondents

Gender	Number	Percent
Male	76	53%
Female	55	39%
Unidentified	12	8%
Total	143	100%

Response data represented involvement from faculty members in all five of the college academic departments with those in the Trades and Engineering Technology department (N=47, 33%) providing the greatest number of response (See Table 3). Of the self-identified academic department affiliation, 103 (72%) were completed by faculty from academic departments designated as a career and technical education, and 34 (24%) were designated as general education.

Table 3

Academic Department Affiliation of Survey Respondents

Department	Number	Percent
Business Technology	19	13%
Health Science & Education	29	20%
Public Safety	8	6%
Trades & Engineering Technology	47	33%
General Education	34	24%
Unidentified	6	4%
Total	143	100%

Response data showed teaching longevity ranged from less than one year to more than 10

(See Table 4).

Table 4

Teaching Longevity of Survey Respondents

Years Teaching	Number	Percent
<1	5	3%
2 to 10	27	19%
6 to 9	36	25%
10 or greater	64	45%
Unidentified	11	8%
Total	143	100%

The second phase of the study utilized a qualitative focus group drawn from a subset of the population. Fifteen faculty self-identified willingness to participate via the survey instrument (See Tables 5-7). A subset of eight faculty participated in the focus group event.

Demographic information on the eight participants was collected through an introductory icebreaker activity (See Table 5).

Table 5

Focus Group Gender

Characteristic	Participants		Willing to Volunteer	
	Number	Percent	Number	Percent
Gender				
Male	3	38%	9	60%
Female	5	63%	6	40%
Total	8	100%	15	100%

Five faculty members in the focus group taught at the institution for more than ten years while the remaining three taught for nine years or less (See Table 6).

Table 6

Focus Group Teaching Longevity

Years Teaching	Participants		Willing to Volunteer	
	Number	Percent	Number	Percent
<1	0	0%	0	0%
2 to 5	1	12%	1	7%
6 to 9	2	25%	4	27%
10 or greater	5	63%	10	66%
Total	8	100%	15	100%

Two (25%) of the faculty revealed they had little to no experience with CPL while six (75%) affirmed they had awarded CPL to students in the past. Two participants (25%) shared they received CPL as a student while one participant disclosed that they had also received CPL for prior military training as a student. Four of five academic departments were represented in the subset sample. No general education faculty were in the participant group (See Table 7).

Table 7

Focus Group Academic Department Representation

Department	Participants		Willing to Volunteer	
	Number	Percent	Number	Percent
Business Technology	3	38%	2	13%
Health Science & Education	3	38%	4	27%
Public Safety	1	13%	1	7%
Trades & Engineering Technology	1	13%	6	40%
General Education	0	0%	2	13%
Total	8	100%	15	100%

Findings by Research Question

Three research questions were used to analyze data in this study. Question one and two used quantitative data. Question three used qualitative focus group input to develop a thematic reduction data analysis process.

RQ1. Question one of this research study employed two survey questions with descriptive data exploring the question, what factors impact faculty acceptance of credit for prior learning. In section one of the survey, participants were asked to identify previously experience awarding CPL to a student. Response options for the list of factors were yes or no. For the second question, measures of central tendency, using interval data, were computed to summarize the data between faculty with CPL experience (N=70) and those without (N=73). Twelve factors

were ranked from most important to least important based on mean rank. Measures of dispersion were calculated to understand the variability of overall findings for factor scores (See Table 8). Based on mean values, the top three factors identified by both groups (those with and without CPL awarding experience) as critical to faculty acceptance of CPL were; Compensation, electronic portfolio system, and impact on workload. For those with CPL experience, faculty training was also listed as important while those without CPL experience, available administrative support was ranked as important for acceptance. Based on mean scores, both groups identified defined institutional processes and documented quality standards as least important to CPL acceptance.

Table 8

Measures of Central Tendency

Factors	Yes Have Awarded CPL		No Have Not Award CPL	
	Mean	Rank Order	Mean	Rank Order
Compensation	8.77	1	8.87	1
Electronic Portfolio System	7.70	2	8.41	2
Impact on workload	7.54	3	7.78	3
Faculty Training	7.49	4	6.96	7
Dedicated CPL Advisor	6.96	5	7.32	4
Available Administrative Support	6.87	6	7.21	5
Program Accreditation	6.65	7	5.49	10
Supportive Department Leadership	6.59	9	7.01	6
Time to Develop Assessment Tools	5.79	8	5.93	8
Alignment to Assessment Practices	5.40	10	4.92	9
Documented Quality Standards	4.76	11	4.00	12
Defined Institutional Process	3.46	12	4.10	11

RQ2. Research question two investigated driving and opposing forces driving diffusion of innovation perceived in the credit for prior learning process as it related to career and technical education, Participants were asked to respond to a series of twenty-nine Likert item questions aligned to one of five innovation attributes identified by Rogers (2003). The respondents were asked to rate each statement within the attribute dimension using a Likert-type scale, wherein, 1= strongly agrees, 2=somewhat agree, 3=neither agree nor disagree, 4=somewhat disagree, and 5=strongly disagree. Table 9 shows composite scores for attribute dimensions.

Table 9

Composite Likert Scale Responses Per Attribute Dimension

Attribute Dimension	Strongly Agree	Neither agree	Strongly Disagree	Total Responses
	or Agree	or disagree	or Disagree	
Advantages	52%	30%	18%	138
Complexity	85%	13%	2%	143
Compatibility	55%	18%	27%	143
Trialability	72%	21%	7%	140
Observability	23%	32%	45%	139

Regarding relative advantage, approximately half (52%, N=72) of the 138 faculty responding agreed or strongly agreed there was an advantage to CPL. 52% (N=72) agreed or strongly agreed that CPL increased student access to their course or program. However, only 40% (N=55) responded agree or strongly agree that CPL improved student persistence in their course or program with 44% (N=61) selecting agreed or strongly agree that CPL aligns with academic standards set by their course or program.

Overall, 85% (N=121) of the 143 respondents agreed or strongly agreed that CPL is complex. Eighty-five percent (N=121) agreed or strongly agreed that aligning student CPL evidence to their course outcomes was difficult and 79% (N=114) identified developing an assessment for CPL as complex. However, fewer faculty (71%, N=101) felt navigating the college CPL process was complex.

Regarding compatibility 54% (N=77) agreed or strongly agreed that CPL is appropriate for their class or program. Faculty responses identified compatibility differences with assessment methods: 55% (N=79) selected exams, 73% (N=104) choose demonstrations, and 43% (N=62) selected portfolio as the best method for CPL assessment in their course or program. However, only 29% (N=42) agreed or strongly agreed that rubrics were available for assessing CPL evidence.

Fewer than 25% (N=33) of the 139 respondents agreed or strongly agreed that CPL results were observable for their course or program compared to 45% (N=62) who disagreed or strongly disagreed that results were observable. Only 25% (N=33) agreed that CPL student data for their course or program was available while approximately 30% (N=41) were aware of the success or persistence of students who were awarded CPL. Regarding support for CPL, 42% (N=59) agreed or strongly agreed that faculty peers supported CPL with slightly fewer, 33% (N=46), responding that their advisory committees supported CPL. However, 59% (N=82) agreed or strongly agreed that their immediate supervisor supported CPL.

In regards to trialability of CPL, 67% (N=102) of the 140 respondent's agreed that experimenting with CPL before implementation was important. In relationship to investigating CPL before using it, only 37% (N=52) knew others at the college that could help them.

Approximately 66% (N=93) agreed that access to training was important. More than 70% (N=101) of respondents wanted the opportunity to meet the student before granting CPL.

An independent t-test indicated a statistically significant difference in mean scores for compatibility, observability, and advantages (See Table 10). No statistically significant difference existed for mean scores in complexity and trialability attributes.

Table 10

Mean Comparisons Based on CPL Experience

Attribute	CPL Experience	No CPL Experience	sig.
Advantages	2.41	3.00	0.000
Complexity	1.84	1.85	0.914
Compatibility	2.43	2.87	0.000
Trialability	2.51	2.53	0.861
Observability	2.32	2.91	0.000

A test of the full logistic regression model against a constant-only model showed statistical significance in the attribute dimensions for compatibility (chi-square = 24.34 $p < .001$ with $df = 1$) and advantages (chi-square = 16.00, $p < .001$ with $df = 1$), indicating that the model was able to distinguish between respondents who have and have not award CPL. A Nagelkerke's R^2 of .209 for compatibility and .146 for advantage indicated an increased relationship between prediction and attribute dimensions. Based on the model ranges, a compatibility variance of 16% to 21% and an advantage variance of 11% to 15% resulted, depending on whether Cox & Snell R^2 or Nagelkerke R^2 methods respectively were referenced. The percentage accuracy of 60.8% for compatibility and 69% for advantage was calculated. Exp (B) described the extent to which raising the corresponding measure by one unit

influences the odds ratio. Odds-based ratios on attributes dimensions identified significance. When one unit (from no to yes for experience awarding CPL) raises complexity or advantage associations, the odds ratios increases 5.5 times for compatibility and 2.3 times advantages (See Table 11).

Table 11

Logistic Regression Based on Previous CPL Experience

Attribute	B	S.E.	Wald	df	P	Exp (B)
Advantage	0.84	0.23	13.32	1	0.00	5.5
Compatibility	1.7	0.392	18.83	1	0.00	2.3

One-way MANOVA Pillai's Trace test showed significant results for academic department using an alpha level of .05. (Pillai's Trace=.19, $F(8,260) = .001$, $n^2 = .95$). Multivariate $n^2=.95$ indicates approximately 95% of the multivariate variance of the dependent variable is associated with the academic department.

The Leven's test of equality of error variance was not met for either dependent attribute dimension (advantage =.154, compatibility =.363, $p<.05$) thus rejecting that the groups have equal variance. To protect against type I errors, a Bonferroni test was conducted ($p = 0.5/5$. $p <.01$). Pairwise comparisons (See Table 12) shows a significant difference for compatibility between Business Information Technology and General Studies departments but not with any other academic departments. No pairwise differences resulted based on teaching longevity were identified.

Table 12

Significance in Pairwise Comparison

Compatibility	Academic Department	Academic Department	sig.
	Business Information Technology	Health Science	0.215
		Public Safety	1.000
		Trades Engineering	
		Technology	1.000
		General Studies	0.001
	Trades Engineering Technology	Business Information	
		Technology	1.000
		Health Science	1.000
		Public Safety	1.000
		General Studies	0.006

RQ3. Analysis of qualitative data employed the thematic reduction method discussed in Chapter Three. During the opening icebreaker activity, faculty appeared supportive of CPL providing evidence through personal value and statements that demonstrated optimism in the CPL model to support students. Supportive statements such as "... an opportunity we are missing..." and "... [we] the college could increase enrollment... bring in some amazing people... retool their skill set" represent faculty support for the idea of CPL. Identification of specific populations that could benefit were identified including, "...people with a military background" and those "... working in finance". Additional support for the idea of CPL was seen in responses such as "...[we] ned to figure out a way ... without making them [student] spend a lot of time and money ...not retake classes that they already know the subject matter".

Comments framed in advantages for students and how the institution could benefit were acknowledged.

Thematic reduction surfaced two enduring themes (ED) related to CPL from the faculty perspective. *Faculty trust of evidence in support of the CPL request by the student* (ET1) and *Expectation of students' initiative in requesting and documenting CPL consideration* (ET2). Participants routinely referenced the term course competencies, as the building block used to meet and measure outcomes. Course competency is the institutional phrase used to identify course outcomes. An investigation to determine how course outcomes align with non-academic evidence revealed multifaceted meanings of what evidence is expected and how evidence aligns with faculty expectations.

Themes. Two enduring themes (ET) presented themselves through the reduction process. ET1; Faculty trust of evidence in support of the CPL request by the student. Undergirding ET1 are three sub-themes (ST) presented in no particular order as; ST1) Authenticity of valid product (Knowledge, Skill, Attitude), ST2) Student communication ability, and ST3) Quality of standards. Each placed limitations on trust regarding subjectivity and objectivity in outcome measurement. Expectations of Student Initiative (ET2) surfaced the following subthemes in no particular order; ST1) Student ownership, ST2) Student responsibility, and ST3) Student accountability for evidence alignment to competencies. Each placed the responsibility for CPL outcomes on the learner.

ET1; Faculty trust of evidence in support of the CPL request by the student. As the conversation moved from one of general introduction to one of increased inquiry, faculty discussions moved from support of CPL as an idea to a perspective of suspicion. Lack of legitimacy emerged through discussions focused on the credibility of student evidence.

Suspicion in evidence quality and who was confirming the evidence generated significant dialog between participants. Faculty members with little CPL experience recommended validation through employers with statements like, "...[a] letter from an employer ...[confirms] the person worked here ...[includes] the functions they performed, in detail..." Other faculty required more explicit evidence including, "...proof of assessment from their employer..." In counterpoint to business validation, faculty with CPL experience presented the idea that there can be, "...subjectivity in the letter from the employer..." As a statement to address employer subjectivity and authenticate evidence, a question raised asked, "Could there also be something where you go out to the employer where the student is working?" This series of comments represents concern with how employer provided evidence establishing a trust of evidence.

The idea of replicating existing course work was frequently conveyed as a way to ensure authenticity in CPL course outcomes. One participant stated it best stating, "...even though they have portfolios we still require an evaluation of their current skills." Other participants concurred that course outcome should be evaluated in the same way classroom course outcomes are determined. Concepts included expressions such as, "fair," "objective," and "equity and equality." For example, faculty verbally and visually agreed with the statement presented, "...you need very clear and concise guidelines... [for] what is going to credit for prior learning [evidence] ... what is not." A long-term faculty member that previously awarded CPL stated, "My rubric is very detailed from my assignments ... basically [I] scored the [CPL] work product as if it was an assignment the student turned in during my class." Supportive statement including, "...so it's consistent..." was validated by head nodding confirmation from participants the room.

Dialog presented an agreement that effectiveness of student communication plays a significant role in establishing faculty confidence (trust) in the evidence being presented. One faculty stated it best, “If they are unable to communicate it [evidence] when you ask in a very categorical way... they are not able to deliver what they know then that is a problem.” Comments such as, “...fumble with the ability to present...” and “...communication is a critical ingredient that exposes them right away...” display sentiments that perceived deficiency in student communication skills warrants hesitations about learning competence resulting in lack of trust in the evidence provided.

The issue of quality standard presented itself through the discussion. Faculty comments revealed statements challenging concepts of subjectivity and objectivity in determining how course outcomes are measured. Comments such as “...the subjective things [faculty] need to measure...” or “... applications [of CPL] are subjective...” and “...it is subjective for our situation...” highlight influences, biases, and judgments contained in determining how CPL meets course outcome. In response to the idea of subjectivity, the term “rubric” was frequently used, and comments led to the affirmation that they improved objectivity in evaluating CPL. Affirmation statements including, “... use actual rubrics from my class to get around it [subjectivity]...” supported methods of objectivity. While some participants countered the statement saying, “...I don’t have an exact rubric...” or “... I never thought [using] a rubric...”

Participants further revealed variation in what and who determines standards or criteria for CPL outcomes. Related to objectivity, the term “benchmarks” emerged repeatedly. An underlying query associated with how benchmark criteria are determined emerged. Statements such as, “...some sort of definite benchmark..” and “...some sort of guidance...” were affirmed verbally and through head nodding verification. Addition researcher inquiry into who

determines criteria for CPL course outcomes produced varying options including "...your team determines [criteria]..." or, "...you almost need your department [to determine criteria]..."

Numeric inquiry responses included declarative statements including, "...you need to be employed in the field for at least 2.5 years..." and "...every one [competency] had to be met at 78%". Continued dialog demonstrated lack of clarity in statements such as, "...is it 70% on every exam..." or "...did they meet 100% or 80%..." and "...you have to pass all the competencies, or you haven't really passed the course..." were expressed. Overall, one faculty said it best by acknowledging standards are required and, "...it comes down to they still have some benchmark that they have to meet."

Frequent comments reflected a belief that providing students a list of course competencies provided adequate guidance for a student to communicate required evidence to meet course outcomes. Respondents indicated trust and confidence in this design to provide primary criteria for students requesting CPL. In fact, comments revealed confidence in the fact that faculty provided sufficient clarity to students for what was needed to determine course outcomes with statements like, "...I will give them the syllabus... there are the competencies and assignments... I expect you to meet ...". Additional support for competencies as adequate student direction included, "...I said here are the competencies ... the assignments I use in my class...give me work proof...if you miss you can't get credit." The idea of a preparation course was discussed. Visual and verbal support were reflected in statements including, "...an opportunity might be a course to prepare somebody that is coming back to go after credit for prior learning..." Based on qualitative data, faculty trust is grounded in the fidelity of course competencies (outcome statements) to provide students clear direction on how to provide evidence however additional support for a course to assist students was recommended.

ET2; Expectation of students' initiative in requesting and documenting CPL

consideration. ET2 surfaced expectation of student initiative in the CPL process. Participant comments affirmed student ownership as critical in determining CPL outcomes. Participant responses included the concept that determining course outcomes relies on student accountability for assembling required artifacts necessary to meet faculty evidence requirements. Statements including, "... you need to give me work product... show me that you did this...they own it!" reveal principal accountability for assembling evidence sits with the requester.

Declarative statements from faculty affirmed exclusive student responsibility in statements such as, "... a lot if it needs to be put on the student..." and "...the onus is on them to demonstrate it,," or "...if you [the student] are requesting it, you need to show why..." More encouraging statements provided optimism in a student's ability to provide evidence, "They are professionals ... they can do this" and "...the course I use for this [CPL] overlaps with the job description ... it is not difficult, for them." These responses provide evidence that faculty expect students to be responsible for assembling the necessary evidence.

Throughout the dialog, a recurring theme identified that students are accountable for delivering evidence supporting course competency (outcome) attainment. Accountability for providing required evidence, aligned to faculty-developed competencies provided to the students, was the requester's responsibility. Inquiry into precisely to what degree faculty expected students to make the connection of evidence to the course competencies revealed a majority (6 participants) agreed verbally and visually that they [faculty] actually made the connection. Reflected in the statements, "...I think we personally make those connections ...in most cases" and "...I think I make the connection ... you [student] need to demonstrate it." The discussion highlights the idea that preliminary accountability for evidence alignment to outcomes belongs to

the student, however, faculty determines actual affirmation of outcome determination. One faculty said it best, "...they [the student] don't see the below the line data..." In this case, "below the line" is an institutional term for the activities and performance standards faculty develop to support outcome achievement in the learning environment. This indicates that evidence alignment may be difficult for students due to limitations with only competencies as a guide. Results demonstrates determination constitute a joint responsibility between the student and a faculty.

Themes construed through thematic reduction symbolize a seesaw analogy. Figure 5 provides a visual model for the interplay of themes. The depiction of a teeter-totter with faculty responsibility to uphold quality on one end and students initiative expectations on the other with CPL awarded as the fulcrum point in the middle. In the case of evidence, student evidence provided for CPL determination and faculty expectations of evidence necessary for decision making seek to find a balance. However, data suggests that faculty trust and expectations make it difficult to balance the CPL seesaw.

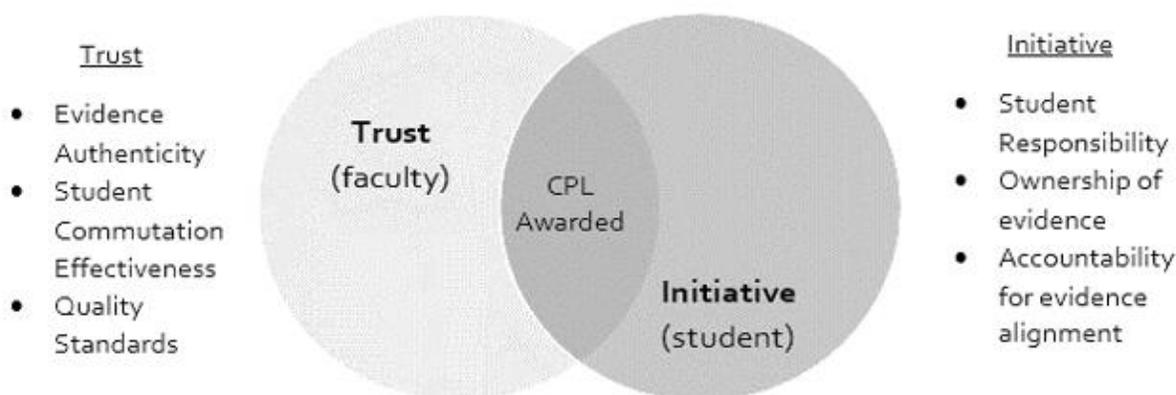


Figure 5. Themes at play in CPL decisions.

Inconsistent evidence. Participation of respondents and non-respondents may have differed in ways that could alter results. For example, faculty who did not have an interest in CPL may have opted not to participate, perceiving the topic as not relevant to their course or program.

Quantitative data in RQ1 identified the factor “defined institutional processes” as least important for faculty acceptance of CPL. Quantitative data in RQ2 found that over 70% of respondents found the CPL process difficult to navigate. It is unclear how the term processes were perceived differently between respondent groups.

Quantitative survey data in RQ1 identified factors found to be least important for CPL acceptance as “defined institutional processes” and “documented quality standards”. Qualitative data collected from RQ3 focus group participants’ routinely identified the need for very clear and concise guidelines for what is used for credit for prior learning evidence and what is not. RQ3 also identified strong support for benchmarks and rubrics. It is unclear how documented quality standards are perceived differently between respondent groups.

Summary

This chapter provided an overview of study results by answering each of the three research questions. The quantitative results identified significant differences between those with CPL experience and those without. Further analysis-identified innovation attributes dimensions of advantages and compatibility as significant. Logistical regression odds-based ratios for advantage and compatibility differed based on faculty experience with CPL. MANOVA pairwise compatibility comparing attributes of advantage and compatibility with academic department and teaching longevity showed significant academic department differences only between Business Technology and General Studies academic departments.

Qualitative data revealed two enduring themes shedding insight into both faculty and student perceptions of CPL. Faculty trust of evidence in support of the CPL request by the student, and expectation of students' initiative in requesting and documenting CPL consideration. Themes were identified through a thematic reduction process following focus group insight gathering. The focus group semi-structured data collection process was used to arrive at enduring and sub-themes through a reduction process informed by Giorgi (2009). This resulted in relevant themes from verbal and video transcript evaluation. Chapter five will provide a discussion on this study's findings and resultant conclusions along with recommendations based on these findings.

Chapter V: Summary, Conclusion, and Recommendation

The problem this study aimed to address was what prevents faculty support and endorsement of credit for prior learning in post-secondary career and technical education. The primary purpose of this study was to gain insight regarding faculty perceptions on factors and forces affecting acceptance of CPL as a strategy for increasing adult access to post-secondary credential attainment. The research questions that guided this study are: a) What factors impact faculty acceptance of credit for prior learning (CPL), b) What driving and opposing forces are perceived in the credit for prior learning processes as it relates to career and technical education, and c) What do faculty identify as critical when determining how CPL meets course objectives?

Research within this study employed both qualitative and quantitative methods to derive data capable of identifying factors and forces impacting faculty support for credit for prior learning (CPL).

This chapter provides the conclusion by the research studies questions (RQ1 – RQ3). Conclusions are presented based on the interaction between RQ1 through RQ3. Conclusions are further explained against the study's theoretical framework. The chapter concludes with recommendations for institutions aiming to implement CPL or those that have implemented CPL into their student recruitment and institutional acceptance processes. Additionally, recommendations for further research are provided.

Discussion

With the recent national college completion momentum, growing labor force skill requirements, and the need to increase credentialed adults' for the workforce, credit for prior learning (CPL) is identified as strategy to assist with the nation's adult degree attainment goals. According to the journal *Inside Higher Education*, prior learning assessment (PLA) could be

higher education's next big disruptive force (Fain, 2012). CPL has been shown to increase adult persistence and completion in higher education leading to increased labor market skills that support family-sustaining wage attainment. Adults' multiple roles and commitment increase the probability that they will look for programs designed with flexibility in time and location for both course completion and access to essential student services (Ross-Gordon, 2011). In other words, increasing adult participation and degree attainment will require institutions to explore new flexible opportunities, such as awarding credit for learning.

The critical nature of faculty buy-in and the establishment of a quality framework for evaluation must ensure validation and credentialing practices are supported if the educational innovation presented in this study will be supported. This studies findings support the idea that faculty perceive CPL as an opportunity. However, consistent with Sherman and Klein-Collins (2015) the study highlights reservations relative to trust and validity of evidence in demonstrating achievement of learning outcomes. Furthermore, the findings echo, with reservation, proponents of CPL that claim if implemented and assessed systematically, learning outcomes could be equivalent to those of students who completed specific course work. This aligns with the recommendation for involving institutional stakeholders' (including faculty, support personnel, student services, administration, etc.) understanding of and engagement with CPL policies, procedures, and assessments (Lakin, Crandall, Nellum, & Seymour, 2015).

Change, under any setting or circumstance, can cause resistance. Wagner (2001) suggested that any theory of change must seek to explain how conditions and capacities for sustaining change are created. This is evidenced through the tension surfaced in the study's findings illustrating that faculty perceive CPL as presenting both opportunities and challenges. Further supported by Lakin (2015) that while CPL allows students to enter and progress through

programs quickly and reduce time to degree attainment, a philosophical tension exists between how something is learned and whether the learnings are equitable to faculty-led learning outcomes ultimately measured by the business and industry communities that are being served. The findings also support trepidation highlighted by Rogers (2003) as resistance being an innate characteristic to new or unfamiliar practices. Creation of receptiveness to change demands those required to adopt a change to understand the underlying reasons.

Using Rogers' (2003) innovation theory for this research helped identify opportunities to increase adoption and diffusion of credit for prior learning in this post-secondary institution. While this study did not use Rogers (2003) diffusion of innovation theory to explain why credit for prior learning adoption has occurred, it does identify factors and forces contributing to faculty acceptance. Findings from this study identified compensation and workload factors as being critical for acceptance. Compatibility was also identified as significant to faculty support of CPL. Consistent with the findings from this study, faculty expect CPL evidence to resemble or replicate familiar classroom evidence. As identified in the theoretical framework, innovation theory identifies what conditions increase or decrease the likelihood of change adoption while change theory identifies how and why change is expected. As presented in Figure 1, tension exists between what impacts change and how it leads to desired goals. In other words, this study suggests that CPL has not been totally adopted or rejected by the participants in this study, which means that CPL has not fully diffused through the sample represented in this study.

Analysis of quantitative data provided a scaffolding of CPL factors and forces that present insight to limitations influencing support for CPL in post-secondary education. The opportunity to enlist faculty support for CPL is bound up in these factors and forces. Consistent with the theoretical framework, there are internal and external influences imposing pressures on faculty support for CPL. Used collectively, the four theoretical constructs identify macro and

micro-level impacts on CPL progress in post-secondary education. At a macro level, social and economic efficiency rely on innovation to create educational change. At a micro level, points of constriction (factors and forces) suppress progression of CPL as an innovation resulting in a lack of educational change concerning CPL.

RQ1. The studies question, *what factors impact faculty acceptance of credit for prior learning?* provided the following findings. Survey results were used to identify if faculty experience with CPL impacted how CPL factors were ranked. The data show both those with and without experience agreed on three factors important for faculty acceptance of CPL: compensation, availability of an electronic portfolio tool (identified as a system for efficiency), and impact on workload. For those with CPL experience, faculty training was also ranked high while those without CPL experience identified dedicated CPL advisor important for acceptance. Compensation and workload finding align with problems with the credit hour, which in most institutions is the building block for faculty compensation and workload assignments (Craig, 2015; Klein-Collins, Sherman & Soares, 2010).

Faulty respondents identified support as critical to gain acceptance. Based on survey evidence, faculty with prior CPL experience defined support in the form of faculty training. Those without experience defined support in the form of administrative assistance. Training faculty on the benefits of PLA and its links to learner outcomes is a strategy supporting adoption (Treis-Rusk & Smith, 2014). These results support the idea that while financial impact and efficiently strategies are important for faculty acceptance, support (training and administrative) is also important. In particular, those that had CPL experience identified training as highly important.

Both those with and without CPL experience defined institutional process and documented quality standards as least important to CPL acceptance. This represents factors associated with faculty-led practices and procedures. Research in CPL emphasizes the importance of high-quality standards for assessing and credentialing prior learning (Freed, 2006; Nytanga et al., 1998). This notion of quality standards appears to have inconsistencies in meaning based on survey responses and focus group findings. Results in general suggest that CPL acceptance factors are relatively comparable based on faculty experience with CPL.

RQ2. The study's question, *what driving and opposing forces are perceived in the credit for prior learning process as it relates to career and technical education.* provided the following findings. Based on Rogers's theory of innovation descriptive data used agreement percentages aligned with innovation attribute dimensions to draw conclusions. Most faculty-based barriers are second order, dealing with internal factors such as perceptions and beliefs (Reid, 2014) A majority of respondents strongly agreed that CPL is complicated. Complexity in aligning evidence to course outcomes, navigating the CPL process and development of assessments were acknowledged. Approximately half of respondents agreed that advantage and compatibility impacted support for CPL. More than half agreed that experimenting with CPL before implementing had an impact on CPL support. However, less than a quarter were able to identify observed outcomes of student success or persistence resulting from CPL. There are often inconsistent practices with minimally promoted opportunities and reduced success rates of students who attempt CPL (Shanmugham & Kishore, 2012). These data suggest that while CPL is seen as complex, faculty's ability to practice with CPL and transparency of CPL results are important factors to consider for gaining acceptance faculty. Furthermore, identifying advantages and compatibility are required.

When considering faculty experience with CPL and how it influences perceptions, results indicate attributes for advantage and compatibility are impacted by faculty experience with CPL. Faculty are often more receptive to prior learning assessment if they are aware of existing principles and practices (Treis-Rusk & Smith, 2014). Based on independent t-test results, faculty with previous CPL experience had statistically significant differences in three attribute dimensions: advantage, compatibility, and observability. Logistic regression determined respondent's perceptions in advantage, compatibility, and observability could predict awarding outcomes in CPL. Results of logistic regression analysis predicted odds-ratios significantly increased for faculty without CPL experience based on perceptions of advantage and compatibility attributes. Results demonstrate that experience with CPL impacts faculty perceptions reducing the odds of awarding CPL.

Demographic data for academic department affiliation and years of teaching, impacted perceptions of acceptance and compatibility. Test between subject's effects was identified as significant for compatibility. The Bonferroni post hoc test found significance in academic department patterns between Business Technology and General Studies academic departments.

RQ3. The study's question; *what do faculty perceive as critical evidence when determining how CPL meets course objectives*, provided the collective findings participant narrative through two enduring themes and six sub-themes. ET1) Faculty trust of evidence in support of the CPL request by the student and ET2) Expectation of students' initiative in requesting and documenting CPL consideration

ET1; Faculty trust of evidence in support of the CPL request by the student.

Participants collectively spoke to faculty desire for evidence that is authentic. The use of employer endorsement was identified as a potential source for assuring authenticity of student

learning. Faculty members can be uncomfortable with the idea of awarding credit for learning acquired outside the institution and need reassurance that the evaluation process is rigorous (Erisman & Steele, 2015; Lakin, Crandall, Nellum, & Seymour, 2015; Treis-Rusk & Smith, 2014). Authenticity through replication of current classroom evidence was an underlying premise supporting trust of evidence.

Faculty described how CPL course outcome assessment is directly aligned to existing artifact expectations and current classroom assessment tools. Consideration for the emergence of entities or systems capable of evaluating different learning experiences for credit worthiness will be critical (Soares, 2013). Based on focus group discussions, latitude in CPL evidence appears restricted to assessment evidence examples that faculty are accustomed to. Directly matching program curriculum allows for comparing assessment performance with current and past student, therefore, evaluation tools and strategies may differ (Tannehill, Solomon, & Yeager, 2008). Results indicate that faculty expect CPL evidence to closely resemble artifacts they see in their existing assessment practices. This highlights that replication of specific classroom evidence enhances faculty trust in assuring CPL equitably meets course outcomes.

Trust of evidence was identified as involving subjectivity but requiring objectivity. From a faculty point of view, consistency, equity, equality, and fairness were explicit statements described as critical in non-standard evidence evaluation practices. Examination of CPL models highlights the importance of high-quality standards for assessing and credentialing prior learning (Freed, 2006; Nytanga, Forman, & Fox, 1998). The term benchmark was routinely referenced as a means for establishing quality. Reducing subjectivity in determining course outcomes was identified as crucial in building faculty trust for CPL. While reliance (trust) in benchmarks

appeared consistent, confidence in what qualifies for an acceptable benchmark and how or who determines them was uncertain.

ET2; Expectation of students' initiative in requesting and documenting CPL

consideration. The ability for a student to effectively communicate evidence surfaced as a critical part of CPL evaluation. The ability of a student to clearly and accurately align, explain, and articulate how evidence meets course competencies impacted evidence assessment. Comments appear to reveal that effectiveness in a student's ability to communicate impacts the establishing of trust in measuring student-learning outcomes.

Expectations of student initiative placed significant responsibility and ownership for providing appropriate and necessary evidence on the student requesting CPL. Accountability for evidence alignment was identified as a student expectation. Some conversation recommended a student preparation as useful. Through thematic analysis, participants highlighted that faculty not students' connect the evidence to the competencies (outcomes). Findings from focus group participants suggests that evidence supporting CPL is consequential to reviewers and the programs credits transition into. In formal learning environments, the organization sets the goals and objectives, while informal learning allows the learner to set the goals and objectives (Cofer, 2000). Based on finding, the ability to make connections between course outcomes and evidence requires faculty insight. However, based on faculty input, course outcome statements are the standard framework provided for students meaning students must determine what an evaluator would see as adequate and representative evidence for CPL evaluation.

Conclusions

Collectively, participants of this study provide insight into the complex dynamics of implementing credit for prior learning in post-secondary education. They share the message of

can-do with reservation. Acceptance is impacted by factors concerning compensation and efficiency as critical for gaining acceptance. Conceptual approval for CPL was apparent. However, trepidation revolved around trust of evidence supporting CPL and considerations for student expectations in requesting and documenting CPL.

Conclusion one. The paradox in credit for prior learning is that increasing efficiency in the learning process, particularly using skills that learners already poses, finds opposition and resistance in the credentialing process. The definition of evidence, a hallmark of assessment, is met by factors of trust and variations in what constitutes quality. Evaluation of what a learner can do is held in high regard in CTE education and the workforce. However, skills learned in the workplace are not easily transferred into the academic credentialing system designed to develop skills needed in the workforce. The educator is caught between supporting increased adult access, providing alternative learning assessments, and upholding the expectations and assurance of learning quality required for the workforce.

Trust of evidence, both how evidence is presented and evidence authenticity, present a concern for quality. Assessment practices are at the heart of CPL and faculty confidence and clarity in evaluation are foundational to CPL support. Evidence judgments and CPL decisions are rooted in academic quality standards. However, objective measures are often unclear or lack specific rubrics. Based on the researcher's reflective reasoning, quantitative data resulted in a finding that quality standards were identified as low importance for gaining CPL support. This finding is in direct conflict with qualitative findings, where participants struggled to define quality standards explicitly. Additional participant narrative on how quality standards are set ascertain a necessity to clarify how compatibility between traditional course-based and non-traditional learning evidence is interpreted and validated in CPL practices. Instructional design

services and faculty training need to advance tools to effectively assess and evaluate knowledge, skills, and dispositions in alignment between course based and non-traditional student learning evidence.

Conclusion two. Support for the CPL process requires development of a structure designed to help faculty find advantage, compatibility, and observability of CPL results. Based on quantitative survey data, providing a compensation structure and workload model is important for faculty acceptance. This will require institutional decisions balancing funding choices with increased adult access goals. Providing transparent access to success and completion data can provide information to gain faculty support for CPL. Providing faculty peer support and advisory committee support is seen as a way to promote observability in value for CPL.

Conclusion three. Based on survey results faculty with CPL experience identified training as important. Those without CPL experience identified a dedicated CPL advisor as critical for gaining acceptance and acceptance. Different support is needed for those with and without CPL experience; therefore, requires training support before, during, and after experience with CPL evaluations. Institutions should consider staff development for both faculty with and without CPL experience. Supporting creation of benchmarks and rubrics to assess non-formal learning alignment to course outcomes. Engaging staff development and training departments to increase methods of objective assessment are necessary to increase faculty perceptions of compatibility of CPL in post-secondary education.

Theoretical framework interaction of the conclusions. Credit for prior learning as an educational innovation is intertwined within this theoretical framework. As an ideal interrelated system, theories of economic and social efficiency drive the necessity for CPL. As an innovation, CPL supports social and economic efficiency while encouraging change in the

education system. The construct supports innovation to move freely through the system implementing the needed change. In this case of CPL, obstructions affecting forward movement due to lack of faculty support, restricts CPL advancement as an innovation. Social and economic pressure outside education may provide the force required to advance the innovation. However, lack of support from faculty can be seen as creating a tangled constriction that prevents innovation diffusion leading to change.

Recommendations

Based on the results of this study, the following recommendations to increase the adoption and diffusion of credit for prior learning in post-secondary career and technical education institution were made:

Recommendations for CPL implementation. This study offers guidance primarily for an institution that wishes to take advantage of CPL in post-secondary career and technical education while addressing and mitigating possible faculty concerns limiting support and adoption. The following are the recommendations.

- Development of an institutional compensation structure and workload model
- Increase system efficiency for faculty through technology-mediated collection tools and systems should be explored. This can reduce complexity for both learners and faculty.
- Clear communication of learning outcomes expectation for students, beyond outcomes statements documented in curriculum documentation, is required.
- Both evidence presentation and evaluation methods require clearly articulated expectations and need to go beyond documented outcome statements.

- Training for those with and without experience with CPL needs to be available. Provide dedicated administrative support is also recommended.
- Designing training and professional development strategies to increase judgment confidence in faculty assessors. A focus on development of quality standards for clear and objective assessment is critical.
- Development of CPL benchmarks, rubrics, and quality standard designed to meet evaluation requirements for quality when non-standard evidence is provided.
- At the institutional level, conducting additional interviews or focus groups within specific departments or programs provides opportunity to seek deeper understanding of specific barriers to the implementation of CPL within specific program context. Through the identification of specific barriers, departments can develop more effective professional development opportunities and assessment strategies.

Recommendations for further research. Based on the results of this study, the following recommendations for future research are as follows:

- Continue to strengthen and validate the instrument employed by this study. Suggestions include: conduct additional factor analysis on the instrument to confirm the reliability and validity of the instrument, expand the use of the survey tool with other post-secondary institutions to expand data validity and reliability confidence, and replication and modification of focus group questions and thematic analysis as a way to find meaningful ideas and themes that increase faculty interest and trust in CPL.

- Conduct further research on the adoption of CPL in specific educational disciplines to explore how improved objectivity can be supported when subjective assessment is required.
- Replicate this study at additional institutions with a different mix of technical programs. Study CPL.
- Investigate the practice and implementation of CPL through the lenses of the student benefactor and their employer

Summary

A significant part of understanding how to implement CPL as an innovation in higher education is gauging perceived advantages and compatibility from the faculty perspective. As the increased desire and expectation for adult access to education intensifies, it is important to understand what support gaps and barriers exist. Overall, the conclusion drawn from this study highlights that while a majority of faculty see CPL as complex (85%), supportive measures such as providing compensation, training and electronic portfolio tools are important for increasing faculty acceptance of CPL.

Based on the results of this study, the researcher recognizes that the study's participants have not decided whether to accept or reject credit for prior learning within their courses or programs. However, participants recognize that students and employers exist, and as educators, they are expected to be part of or impacted by CPL. When implementing CPL there is recognition of faculty needing to be open-minded with strategies and solutions responsive to adult learner credentialing. Rooted within career and technical education and its competency-based learning philosophy, CPL may find its adoption into practice. This is consistent with the continued need for improved skills within the future of work context. Advancing and nurturing

CPL will require evidence outcome measures that work with non-standard evidence. This study has provided insight into the constructs that contribute to factors and driving and opposing forces impacting CPL in post-secondary education to help amplify the adoption and diffusion of an effective implementation of CPL.

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Appendix A: Survey Invitation

Greetings Faculty,

I hope everyone had a good spring break. I would like to invite and encourage your participation in a brief 5-minute survey to share your perspectives on Credit for Prior Learning (CPL). Credit for Prior Learning has been identified as a critical strategy for supporting adult access and persistence in post-secondary credential attainment. As faculty, you are essential to the assessment and evaluation design process. Your participation will provide valuable insight.

The information from the survey will help your fellow NWTC colleague, Anne Kamps, with her dissertation research. The information may also help guide NWTC's institutional development of systems and processes necessary to support a high-quality CPL program from the perspective of an educator. Our purpose in exploring Credit for Prior Learning is to promote best practices for student success identified in the research. Research has shown that learners receiving CPL as a result of knowledge and skills they already possess can significantly contribute to an adult students' ongoing progress and persistence towards a degree.

This week, you will receive an invitation to complete a survey titled, *Faculty Perceptions of Credit for Prior Learning (CPL) in Post-secondary Education*. The anonymous survey will be administered via the UW-Stout Qualtrics system. Please consider taking 5-minutes to provide your valuable insight to support Anne's research.

Thank you for all that you do each day to make a difference in advancing education opportunities for NWTC learners.

Appendix B: Survey Tool

Faculty Perceptions of Credit for Prior Learning (CPL) in Post-secondary Education.

Q1 The College is interested in designing a Credit for Prior Learning (CPL) program to support adult learner persistence and degree completion. Faculty insight and input is critical to program development and assurance of high-quality standards for the project. Please provide your input to this brief 12 question survey intended to take 5 minutes or less to complete. Credit for Prior Learning (CPL) allows a student to receive academic credit for demonstrated college-level learning gained through learning experiences that take place outside of formal educational institutions. Have you ever awarded Credit for Prior Learning to a student in your course/program?

- Yes (1)
 No (2)

Q2 How would you rank the following factors regarding their impact on your acceptance of credit for prior learning (CPL)? Use 1 for "most important" and 12 for "least important" by dragging each statement to the order of most important to least important.

- _____ Defined Institutional Processes (1)
 _____ Available Administrative Support (2)
 _____ Dedicated CPL Adviser (3)
 _____ Supportive Department Leadership (4)
 _____ Electronic Portfolio System (5)
 _____ Time to Develop Assessment Tools (6)
 _____ Impact on Workload (7)
 _____ Compensation (8)
 _____ Program Accreditation (9)
 _____ Alignment to Assessment Practices (10)
 _____ Documented Quality Standards (11)
 _____ Faculty Training (12)

Q3 Please rate your level of agreement regarding the complexity associated with CPL

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
Aligning students CPL evidence to my course outcomes (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Balancing my teaching responsibly with CPL college/student expectations (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing CPL specific assessment tools (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Navigating the college CPL process (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q4 Please rate the level of CPL compatibility associated with your course/program

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
Exams are the best assessment method for my course/program (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student demonstrations are the best assessment method for my course/program (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A portfolio is the best assessment method for my course/program (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning outcomes and performance standards support the use of CPL for my course/program (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPL rubrics are available for my course/program (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPL is appropriate for my course/program (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 When you think about experimenting with CPL on a limited basis rate your agreement with the following statements.

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
Access to training is important in my decision to try CPL (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The want the opportunity to meet the student before approving a CPL request (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know others at the college who can help me with CPL (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using my course final exam is a good way for me to begin offering CPL (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 Please rate how observable the results of CPL are in your course/program

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
Data on CPL granted to students in my course/program is available (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The success/persistence of students in my course/program who have received CPL (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Faculty members determine the final decisions on awarding CPL (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My faculty peers support CPL (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My advisory committee supports CPL (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My direct supervisor supports CPL (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7 Please rate your agreement with the advantages CPL provides for your course/program

	Strongly agree (8)	Somewhat agree (9)	Neither agree nor disagree (10)	Somewhat disagree (11)	Strongly disagree (12)
CPL increases student access to my course/program (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPL improves student persistence in my course/program (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPL aligns with academic standards set by my course/program (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CPL training supports my professional development needs (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Please rate your knowledge of college infrastructure supporting Credit for Prior Learning (CPL).

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
The College's strategic directions support CPL (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The college website sets provides clear information regarding CPL (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A college policy accurately reflects expectations for CPL (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The college has a clearly documented process for awarding CPL (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The college provides adequate faculty training for CPL (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 Gender

- Male (1)
- Female (2)

Q10 In which academic department do you predominately teach?

- Business Technology (1)
- Health Science & Education (2)
- Public Safety (3)
- Trades & Engineering Technology (4)
- General Studies (5)

Q11 How long have you taught at the post-secondary level?

- Less than 1 year (1)
- 2-5 years (2)
- 6-9 years (3)
- 10+ years (4)

Q12 I would be willing to participate in a CPL focus group to share my perspectives. Please type your name in the box below and you may be contacted when the focus group is scheduled.

Appendix C: Dissertation Research Timeline

PROJECT DETAILS	
DATE	MILESTONE
1/23/17	Project Start
2/24/17	Pilot Survey test
3/1/17	Pilot Survey modification
3/28/17	Survey Invitation
3/29/17	Survey deployment
4/9/17	Follow-up 2
4/12/17	Follow-up 1
4/12/17	Survey Colose
4/14/17	Focus Group Schedule
4/17/17	Focus Group Invitaition
4/21/17	Focus GroupEvent
5/5/17	Project End

Appendix D: Cronbach Alpha Results*Attribute Results for Internal Reliability of Pilot Survey Results*

Dimension	Cronbach's Alpha
Complexity	0.741
Compatibility	0.639
Trialability	0.930
Observability	0.829
Advantages	0.837

Appendix E: Focus Group Sample Script

The questions being asked will be used as a guide for the interview. Additional question prompts may be used to identify and understand concepts and points of clarification.

Focus Group: Credit for Prior Learning
Script Template

Opening (5 Minutes):

“Hello. My name is Anne Kamps. Today I would like to have a conversation with you about Credit for Prior Learning. What we are trying to accomplish before we leave here today is to get a better understanding of what faculty perceive as critical when awarding CPL. Are there any questions?”

Respond to participant questions.

“Let’s go over some rules. First, let’s turn our cell phones to vibrate so we are not interrupted. So we can keep track of what people are saying, remember that we have one person talking at a time. Please do not interrupt someone when they are talking. Also, everything you tell us today will be kept completely confidential. We will summarize the things you tell us. One of my jobs today as the moderator is to make sure we discuss all of the issues we planned to discuss. If I ask you questions while you are talking, I’m not being rude; I’m just making sure everyone has a chance to talk and that we discuss all of the issues.

“Just to get us started, let’s have everyone tell us your name, and how long you have been at the college and any experience you have had with CPL in your course/program. (Facilitator points to someone to start; randomly select people to demonstrate that people do not talk in sequence).

“Thank you for sharing with the group - Let’s begin discussing CPL in a bit more depth.”

Questions 1-3 (30 minutes)

1. What type of assessment do you typically use when a student requests CPL?

Prompt: is one method best?

Probe: how do you decide?

2. How do you determine if CPL meets your course objectives?

Prompt: who determines the standards?

Probe: what defines met?

3. How do you fairly and objectively assess learning competence in CPL?

Prompt: is it objective?

Probe: what does fair mean?

Questions 4 (15 minutes)

4. How do you assess course competencies for CPL differently than in the classroom?

Prompt: does it look the same or different?

Probe: do you use a rubric?

Question 5 (15 minutes)

5. To what degree do you expect students to make the connection to the course competencies or do you upon the student's evidence?

Prompt: what don't student know?

Probe: are competencies enough for students?

Closure (5 minutes)

"Are there are final questions? (Respond to questions) Thank you for participating in focus group today. I appreciate you input and candid thoughts. Have a wonderful day.

Appendix F: Thematic Reduction Sample

Transcript for Faculty Focus group April 21, 2017

8 faculty

90 minute Focus Group

Question 4: how do you assess course competencies in the classroom differently than in CPL

Transcript w/ pseudonyms and extraneous information removed	Meaning Units	Topical Statement	Salient Themes
<p>Person G If students are unable to communicate when you ask it in a very categorical way they are not able to deliver what they know and that is a really core problem. But if they can speak to it and present to it and communicate it especially in our field where we are about communication, G, says that is a critical ingredient that exposes them right away. Sometimes people are aware of the subject but they don't know that they know. It is kind of hard to explain. Meaning they can't apply what they know, they can write it down and format it in a paper or accomplish it if you kick them off in a project but if they</p>	<p>Inability of Student to communication impacts confidence in evidence</p> <p>Communication is a critical ingredient</p> <p>Awareness of a subject and knowing it are different</p> <p>Application, communication, writing, and demonstration using synthesis are necessary</p>	<p>Student Communication</p> <p>Student Communication</p> <p>Trust of student knowledge</p>	<p>Student Communication</p> <p>Trust of evidence</p> <p>Evidence Quality</p> <p>Evidence Authenticity</p>

<p>are told to synthesize it on their own they are not able to demonstrate that. It kind of tells you that those put it together classes aren't ready aren't ready to be awarded yet.</p> <p>Person E says to build on your comment if they can speak the language. Was a tool maker and an engineer and going from one group to another they are different. And sometimes even blogging in a program group like that is kind of like what did I say here. It's like they are not going to understand me right?</p> <p>Person D says it's like in the foreign language course, it is one thing on the multiple choice test pick the right grammar rule, pick the right vocabulary word but that is not the same as holding a conversation and communicating what you really do know.</p>	<p>They need to speak the language of the course/program</p> <p>Language in the discipline may be unique. Like a foreign language. It is more than just knowing the language.</p> <p>Level of knowledge domain</p> <p>It is about communicating what you can do.</p>	<p>Student communication and synthesis</p> <p>Communication with specific terminology</p> <p>Communication is more than language</p> <p>Trust of knowledge authenticity</p> <p>Evidence authenticity</p>	
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<p>Person A thinks the portfolio format that A uses doesn't have a real exact rubric so that is something I have written down for but A has viewed that portfolio as this person is a professional and they don't need coursework in this.</p> <p>D thinks it is at a higher level than someone that just finished the class.</p>	<p>No exact rubric for portfolio assessment exists</p> <p>Portfolio is an assessment of a professional.</p> <p>A higher level of performance is expected.</p>	<p>Quality measurement</p> <p>Quality Expectations</p>	
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Appendix G: Informed Consent Form

INFORMED CONSENT

Study Title: Faculty Perceptions of Credit for Prior Learning: Factors and Forces Affecting Faculty Acceptance, Change and Resistance

Researcher: Anne Kamps

This consent form will give you the information you will need to understand why this research study is being done and why you are being invited to participate. It will also describe what you will need to do to participate as well as any known risks, inconveniences or discomforts that you may have while participating. We encourage you to ask questions at any time. If you decide to participate, you will be asked to sign this form and it will be a record of your agreement to participate. You will be given a copy of this form to keep.

➤ **PURPOSE AND BACKGROUND**

You are invited to participate in a research study focus group to learn more about faculty perceptions related to credit for prior learning. The information gathered will be used to better understand the factors impacting the use and support for credit for prior learning in post-secondary education. You are being asked to participate because you volunteered to participate by responding to a CPL survey distributed to faculty at the institution.

➤ **PROCEDURES**

If you agree to participate in this focus group, you will be asked to participate in ninety-minute focus group. During the focus group, you will be asked about factors and perceptions related to your support or resistance to credit for prior learning in a post-secondary education institution, how it could be integrated into the institution, whether you believe your course or program may be affected by CPL, and your general insight into assessment evidence necessary for CPL. The interview will be audio-recorded and the researcher may take notes as well.

➤ **PROCEDURES**

I will invite 5 to 12 people to meet together to discuss their perceptions of the credit for prior learning. The discussion topics include will include your reactions to CPL, how it is being integrated into your course, whether you believe your course or program will be affected by CPL awards, and your general input related to CPL use at the institution. The research will help guide the discussion and a note-taker will be present. To protect the privacy of focus group members, all transcripts will be coded with pseudonyms and we ask that you not discuss what is discussed in the focus group with anyone else. The focus group will last about ninety minutes and we will audiotape or videotape the discussion to make sure that it is recorded accurately.

You will receive a complimentary Buzz coffee card and 90 minutes of professional development for you participation.

➤ **RISKS**

Some of the questions asked may make you anxious or uncomfortable. You are always free to decline to answer any question or to stop your participation at any time. Should you feel discomfort

after participating, you may contact the Dr. Urs Haltinner at UW Stout (715) 232-1493 or HaltinnerU@uwstout.edu.

➤ **BENEFITS**

There will be no direct benefit to you from participating in this study. However, the information that you provide may help instructors and the institution to better grasp critical factors necessary for implementation of a CPL program and the effects CPL decisions has on faculty use.

➤ **EXTENT OF CONFIDENTIALITY**

Reasonable efforts will be made to keep the personal information in your research record private and confidential. Any identifiable information obtained in connection with this study will remain confidential and will be disclosed only with your permission or as required by law. The researcher will have access to the data.

Your name will not be used in any written reports or publications which result from this research. Data will be kept for three years after the study is complete and then destroyed.

➤ **PAYMENT/COMPENSATION**

You will receive a complimentary Buzz coffee card and ninety minutes of professional development for your participation.

➤ **PARTICIPATION IS VOLUNTARY**

You do not have to be in this study if you do not want to. If you volunteer to participate, you may withdraw from it at any time without consequences of any kind or loss of benefits to which you are otherwise entitled.

➤ **QUESTIONS**

If you have any questions or concerns about your participation in this study, you should first contact the principal investigator at anne.kamps@nwtc.edu or at (920) 498-6367.

If you have questions about your rights as a research participant, you may contact UW Stout's University Institutional Review Board (IRB), which is concerned with the protection of volunteers in research projects. You may reach the board office between 8:00 AM and 5:00 PM, Monday through Friday, by contacting the *Office of Research and Sponsored Programs* at buchanane@uwstout.edu or at (715) 232-2477.

DOCUMENTATION OF CONSENT

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks have been explained to my satisfaction. I understand I can withdraw at any time. I have received a copy of this form.

Printed Name of Study Participant

Signature of Study Participant

Date

Signature of Person Obtaining Consent

Date

Appendix H: Focus Group Conference Room

