INTRINSICALLY INTERTWINED: STUDENT PERSPECTIVES OF SUCCESSES AND CHALLENGES IN A COMPETENCY-BASED PUBLIC HIGH SCHOOL

by

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ABSTRACT

A shift in education paradigms has begun to take hold in the American public school system. Increasingly states are awarding waivers allowing schools and districts to move away from the traditional Carnegie time-based approach to teaching and learning (Worthen and Pace, 2014). One innovative effort toward school reform that has shown demonstrable increases in student success is competency-based education (Haystead, 2010). This education model offers self-paced, standards-based curriculum that requires students to demonstrate proficiency in content before advancing (Borre, 2012; Worthen and Pace, 2014).

Extant school reform literature focuses primarily on adult perspectives; however, in order for lasting school reform efforts to succeed, the inclusion of student perspectives is critical (Silva, White, and Toch, 2015). This intrinsic case study was conducted at a public competency-based high school to investigate youth perspectives of components that contribute to student success and to identify components that could be improved to support student success.

Youth participants in this study consist of students enrolled in a high school that was included in a whole-district adoption of competency-based education, reaching full implementation in 2012 (Sommers, 2015). The study asked students, from their perspectives, to identify: 1) which components of competency-based education support student success, 2) how those identified components support student success, 3) which element of competency-based education could be improved in order to increase student success, and 4) how improving those components would contribute to an increase in student success. Data was collected through semi-structured interviews conducted with ten youth, and two administrators. Additional data was collected through researcher-generated field notes and relevant artifacts. Results indicate two distinct categories contributing to student success: 1) School-Level and 2) Student-Level. Results indicate three categories youth participants identified as needing improvement to support student success: 1) Increased Learning Facilitator access, 2) Technology, and 3) Advisory Period. Multiple components are discussed for each category. Suggestions for further research are included.

CHAPTER 1

INTRODUCTION

Background of the Study

In 1983 the National Commission on Excellence in Education released *A Nation at Risk: The Imperative for Educational Reform* that indicated America was failing her students. The 1983 *Nation at Risk* report that indicated approximately 13 percent of all 17-year-olds in the United States were considered functionally illiterate, with illiteracy among minority youth running as high as 40 percent (National Commission on Excellence in Education, 1983). At that time, data indicated a decline in Scholastic Aptitude Test (SAT) scores, a decline in achievement test results in physics and English, and overall aptitude deficiencies in all core subjects. SAT scores continued a virtually unbroken decline from 1963 to 1980, with verbal scores falling over 50 points and average mathematics scores dropping nearly 40 points. Documentation continued to indicate a steady decline in science achievement scores of U.S. 17-year-olds as measured by National Assessments of Science in 1969, 1973, and 1977 (National Commission, 1983). While interpretation of the data from the 1983 *National at Risk* report has been disputed (Ansary, 2007), the report itself proved to be a catalyst for change in the public education system (Vernez, Karam, Mariano, and DeMartini, 2006).

The concerns raised after the release of this report heralded an era of unprecedented efforts to improve American schools that has yet to abate (Graham, 2013). For over 30 years, numerous attempts have been made to improve American public

education, particularly for those students considered most at risk of failure due to low socio-economic circumstances, struggles with English as a second language, homelessness, or other impediments to learning (Adelman and Taylor, 2011). Significantly, over the course of these last 33 plus years, the United States Government, through the Department of Education, has offered states and districts increased federal dollars for school reform efforts, incentives for educational innovation, consequences for low performance, and even penalties for "failing schools" (Moran, 2009; Research Center, 2011; U.S. Department of Education, 2011).

Federal and national school reform efforts have included the 1990's Comprehensive School Reform (CSR) movement, the 2002 No Child Left Behind Act (NCLB), 2012's Race to the Top, and the current Common Core State Standards (CCSS). Innumerable state and local reform efforts have included charter schools, expansion of magnet schools in urban areas, alternative education programs, school choice, year-round schooling, blended-learning, competency-based learning (also known as performance-based education), problem-based learning, digital literacy programs, and flipped classrooms (UNESCO*, 2012; State Education Reforms, 2014).

Despite reform efforts, the National Assessment of Educational Programs (NAEP) reports that in 2013, only 35 percent of 8th graders demonstrated competency of NAEP proficiency standards in mathematics and 36 percent demonstrated proficiency in reading (Nation's Report Card, 2014). At the high school level, the federal government reports found that only 26 percent of 12th graders tested at or above proficiency in mathematics and 38 percent of 12th graders tested at or above proficiency in reading (Nation's Report

Card, 2014). However, this Report Card also indicated a marked decline in high school dropout rates and an increase in student achievement in some sectors. But while students of color saw dramatic increases in achievement during the 1970's and 1980's, little growth has been documented in the ensuing years (National Center for Education Statistics, 2001). Critically important, as predicted in the 1983 *National at Risk* report, the American job market continues to shrink for those with rudimentary skills (Jerald, 2009; United Nations, 2012).

Each of these reform efforts, and many others, while implemented with the best of intentions, have demonstrated varying degrees of success as large numbers of students are still not graduating college or career ready (Civic Enterprises, 2015; Herman and Linn, 2013; Nation's Report Card, 2014). The process of developing and implementing effective and lasting school reform is complex. In spite of the considerable money and time invested in school reform efforts, and the varied modifications and educational strategies implemented over the last 30 years, we continue to hear that "our schools are broken" (Jerald, 2009; Robinson, 2010). It could be argued, however, that our system is not broken but has become somewhat obsolete in the changing landscape of our nation in particular, and the world at large.

Students are entering a workforce that has dramatically changed from the past. Global economies, rapid technological advancements, and shrinking blue-collar job opportunities are a reality for today's graduates (U.S. Department of Labor, 2013). How and Lisi (2014) state, "The problem with schools today is not that they're not what they used to be. The problem with schools today is that they are exactly what they used to be"

(p.10); our current educational system is not able to prepare all students to succeed as they move into the world of continuing education and/or employment.

One educational approach that has demonstrated the potential to meet the needs of today's students is competency-based education (CBE). CBE has provided a learning environment conducive for increasing academic success for a large number of learners (Borre, 2012; Haystead, 2010; Worthen and Pace, 2014). CBE moves public schools out of the text-driven and time-based traditional "industrial" style of education practiced over the past 100 years and into something that is student-centered, has flexible curriculum, is standards and competency-based, and can be individualized to the needs of schools and communities (Berrett, 2011; DeLorenzo, Battino, Schreiber, and Carrio, 2009; Jerald, 2009; Lamperes, 2005).

Data supporting the efficacy of the competency-based model of learning has resulted in a federal policy framework for CBE, released by the United States Department of Education in 2014 (Worthen, et al., 2014). In January of 2015, The Carnegie Foundation issued a report suggesting that it was time to revisit the traditional Carnegie Unit and that CBE is an effective educational approach that provides a system of flexibility and transparency (Silva, White, and Toch, 2015). The Carnegie Foundation acknowledges an increasing need for a more transparent and flexible delivery of education. To date, CBE has been implemented in individual schools in the United States, whole districts including Adams50 School District, Colorado, Lindsay Unified School District, California, and multiple districts in Florida, and Oregon, Maryland, Washington (United States Department of Education, n.d.; Worthen and Pace, 2014).

Maine and New Hampshire lead the way in whole state adoption of CBE (National Governors Association, 2013).

Statement of the Problem

It is in the best interest of our nation to foster students' ability to succeed outside of school (Jerald, 2009; United Nations, 2012). This begins, fundamentally, when students first enter the education system and should follow a trajectory that leads to independence and self-sufficiency as well as the ability to be successful in both college and career or in the Armed Forces (GradNation, 2016). In 2013, approximately 20 percent of American students failed to complete their public high school education, with the numbers being significantly higher for second-language learners, special-education students, and students of color (Layton, 2014; National Center, 2015).

United States Education Secretary, Arne Duncan, stated that students "without high school diplomas face a bleak life of poverty and misery" (Layton, 2014). The average annual income for a high school dropout is $17,299 while a graduate earns an average yearly income of $26,933. Higher incomes lead to increases in wealth accumulation; over a lifetime, graduates average ten times the financial wealth accumulation of non-graduates (GradNation, 2016; U.S. Bureau of Labor Statistics, 2014). Many studies indicate that the increased financial wealth of graduates translates into increased government revenues, lowered government spending, reduction in crime, and increased health benefits (Alliance, 2008; GradNation, 2016; McKeon, 2006; U.S. Bureau of Labor Statistics, 2014) and thus it becomes a social and economic imperative

to improve our educational system to ensure all students graduate with the knowledge and skill they need to lead successful post-secondary lives.

It has been over 32 years since the landmark *Nation at Risk* report led to a national outcry for education reform and multiple school improvement programs have come and gone. Even though reformers have focused on improving learning for all students, data indicates that we continue to have failing schools under Federal guidelines and many students continued to underperform or drop out of school altogether (Mortenson, 2009; National Academy of Education, 2009; OECD, 2011; Silva, et al., 2015, United Nations, 2012).

Extensive research has been conducted to improve student outcomes and yet little research has focused on the perspectives of the students themselves. To date, the literature has focused primarily on adult perspectives of the process involved in transforming education, on the mechanics of CBE school reform efforts, and on academic changes realized in programs that have undergone this shift in education paradigms.

Statement of the Purpose

Many experts in the field of education have come to recognize that students as key stakeholders in the field of education and value their perspectives as powerful forces in school reform (Beattie, 2012; Bishop and Pflaum, 2005; Darling-Hammond & Adamson, 2010; DeLorenzo, et al., 2009; Fox, Bedford, and Connelly, 2013; Mitra, 2006; Savrock, 2008; United Nations, 2012). In fact, many experts insist that student perspectives must be integrated into the conversation surrounding education policy

development (Angus, 2006; Bishop and Pflaum, 2005; Sullivan, 2012; United Nations, 2012).

Effective reform cannot be constructed in a vacuum; inclusion of student perspectives is imperative as youth bring fresh, authentic, *in-the-trenches* observations and assessments of programs in which they are participating. Perhaps more importantly, research indicates that increased student engagement and ownership of individualized educational processes leads to higher achievement in high school, which can contribute to greater success later in college and/or the workforce (Bray, 2012; DeLorenzo, et al., 2009; Manefield, Collins, and Moore, 2007; Student Voice, 2007).

One hallmark of CBE is the inclusion of all stakeholders, including students, in the development and implementation of the model for their schools (DeLorenzo, et al., 2009; Lamperes, 2005; Marzano, Pickering, and Pollock, 2001; Willms, 2000). The purpose of this study is to explore the perspectives of youth enrolled in a public competency-based high school. These perspectives help mitigate implementation challenges in emerging programs as well as advise the continuous improvement process in the high school studied. As we move away from the Carnegie Unit toward "flexible and transparent" educational approaches, we need to include students in reform efforts as they have the most to lose if those efforts fail.

Guiding Research Questions

A 2009 United Nations report on the state of education around the world for 2015 and beyond stated "education policies and programmes must be built on the basis of a careful analysis of the needs and aspirations of the individuals, enterprises and societies

in question and that they must be owned by all relevant stakeholders" (p. 13). Given that "authentic youth-adult partnerships in school transformation are uncharted territory" (Beattie, 2012, p. 160), this intrinsic case study is designed to reveal student perspectives of their educational experiences in a CBE public school in Lindsay, California. Thus, the following research questions were used to guide this study:

From the perspective of Lindsay High School students who participate in a public competency-based education program:

- Q1: What components of the school's competency-based learning model contribute to student success?
- Q2: How have these identified components contributed to student success?
- Q3: What components of the school's competency-based learning model could be improved in order to increase student success?
- Q4: How would improving these identified components contribute to an increase in student success?

Overview of the Study

Previous research indicates a need for the inclusion of student perspectives during development, implementation, and continuous improvement of CBE models (Beaudoin, 2005; DeLorenzo, et al., Mehta, Schwartz, and Hess, 2012; 2009; Mitra, 2008; Sullivan, 2012, Sullivan and Downey, 2015; United Nations, 2012). Conducting a study of student perspectives may provide information valuable for all public CBE schools as they work through the difficult transition from traditional teaching to competency-based learning.

This intrinsic case study, conducted in a public school district that has fully implemented CBE in grades Pre-K through 12, documented perspectives from students currently enrolled in the high school. Data was obtained through interviews with youth and adult participants, researcher-generated field notes, and student-provided artifacts.

Limitations

Creswell (2007) states that dependability of a study needs to include the identification of potential limitations. There are four researcher identified limitations for this study. The first limitation recognizes the unique culture of every public school implementing CBE as they adapt the model to reflect their community. No two schools will, nor should they, implement CBE with a one-size-fits all approach (Sommers, 2015). The second limitation rests in the youth participants. Selection of students for the study was conducted by a school administrator prior to the scheduled site visit and therefore there may be a selection bias unknown to the researcher. The third limitation is the timing of the site visit. Data was collected in November, during the week before LUSD's Thanksgiving break. Results could vary if data was collected at distinct periods that delineate an academic year such as the beginning of the academic year, immediately before a lengthy break, or towards the end of the academic year - particularly for seniors who are concerned with graduation and with the transition out of secondary education into college or career. Finally, the fourth limitation lies in the form of data collection. Semi-structured interviews are not perfectly replicable; however, future studies could be conducted using the same interview protocol (Rolfe, 2004). Field notes are individualized to the researcher and artifacts will vary by student and program.

Delimitations of the Study

Mirriam (1998) stated that, "one of the assumptions underlying qualitative research is that reality is holistic, to be discovered . . . and ever-changing" (p. 202). Two researcher identified delimitations may have influenced processes and analyses involved in this study: 1) while there may have been an absence of relationship building prior to data collection, students may have felt more comfortable revealing individualized perspectives of their experiences with CBE to someone without perceived authority in their academic lives (Lichtman, 2010; Maxwell, 2005; Patton, 2012) and 2) the public high school selected for the study has been recognized as a model school (U.S. Department of Education, n.d.) and was purposefully selected as a public high school that has successfully transitioned from traditional to competency-based education.

Definition of Terms

This study examines the perspectives of students attending a competency-based public high school in Central California. Key terminology in this study includes:

- 21st Century Skills: Criteria of needs for employment and advancement in the modern work force that includes skills such as problem solving, flexibility, technical expertise, and highly-developed interpersonal skills (Jerald, 2009).
- Carnegie Units: A hallmark of the traditional education model, in place since the early 1900's, the Carnegie Unit is based on contact hours with an instructor. Approximately 120 hours translates into one credit. This time-based system can be found in high schools and colleges alike.

- Common Core State Standards: The majority of states had adopted common state standards as recommended by the Common Core State Standards Initiative (CCSSI) by 2011 (Common Core Standards Initiative, 2011). This framework provides academic benchmarks that inform students, teachers, and parents of each learner's progress toward specific educational goals (Phillips and Wong, 2010).
- Competency-Based Education (CBE): Also known as performance-based, mastery-based, or personalized learning, CBE systems provide standards-based, individualized learning experiences tailored to the uniqueness of each student. Learning is student-centered with assessments developed to demonstrate authentic application of knowledge and skills.
- Student Perspectives: For the purpose of this study, the term student perspectives refers to students' personal insights gained through experience. This term includes both the individual and collective perceptions of young people in educational settings. This may include opinions, insights, observations, beliefs, and ideas (Mehta, et al., 2012).
- Traditional Education: The traditional approach to education, for the purpose of the study, is defined as a time-based, credit-driven system of teacher-led instruction driven by standardized curriculum and standard assessments. Students are placed in classroom cohorts determined by date of birth, receive the same material at the same time, and must earn a pre-determined amount of credit by Carnegie Units (number of instructional hours) in order for program

completion (DeLorenzo, et al., 2009; Dewey, 1938; Jerald, 2009; Robinson, 2010).

Conclusion

The American public school system is failing to adequately educate large numbers of its youth. Disturbing statistics provided by the National Academy of Education (2009), Silva, et al. (2015), and the United Nations (2012) indicate the need for our educators to identify current challenges to student success and mitigate them. As waivers to the Carnegie Unit are granted, many schools are focusing on competency-based education as one education paradigm that has documented successes meeting the needs of today's learners.

CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

Experts state two out of every three new jobs created by 2016 will require education or training beyond a high school diploma and that the new global economy requires a transformation of our public education system to meet this demand (Freeland, 2014; Jerald, 2008, Pace, Moyer and Williams, 2015; Silva, et al., 2015; United Nations, 2012; Wagner, 2008). Skills required to be successful in our modern technological and global society differ vastly from those needed during America's previous agrarian or industrial eras. People entering the current workforce need to possess technological expertise, superior interpersonal skills, mastery of higher-level math skills, and critical-thinking skills. Additionally, they need to be able to work collaboratively and to adapt to new circumstances (Freeland, 2014; Jerald, 2008, Silva, et al., 2015; United Nations, 2012; Wagner, 2008). The implication for the American public school system is that in order to graduate students ready to enter this workforce, "districts must do a better job attending the *application* of knowledge and skills, going beyond simply teaching students to 'reproduce' what they are taught within familiar contexts" (Jerald, 2009, p. 69).

This chapter examines the changing educational climate in America's public school system. The review of literature begins with a brief overview of the traditional education model as well a rationale supporting education reform. There follows an examination of significant school reform efforts that have been implemented by the

Federal Government over the past 15 years and offers insight into the successes and concerns of each major Legislative Act. The literature review then provides an introduction to the 21st century CBE movement. The chapter concludes with a brief overview of existing research examining CBE that brings to light the lack of student perspectives in school reform efforts in general and in the CBE paradigm in particular.

In 2008 Tony Wagner, educational consultant and founder/co-director of the Change Leadership Group at the Harvard Graduate School of Education, noted that "schools haven't changed; the world has" (Wagner, 2008, p. ch. 2, p. ii). This literature review examines the evidence that schools *are* changing and there is a need to both examine effective education models and include student perspective in the change process.

Carnegie-Based Education Model

The current model for the United States public school system was created in 1906. At that time, and based on the industrialization of America, the Carnegie Foundation for the Advancement of Teaching recommended that American public schools adopt a system that 1) enrolls students, placing them in grade-level cohorts determined by date of birth, 2) sets fixed calendar years and daily schedules, 3) separates curriculum, and 4) and expects youth to graduate in the same general cohort of age-grouped peers (Outhouse, 2012; Silva, et al., 2015; Sturgis and Patrick, 2010; Robinson, 2010). Hallmarks of the traditional public school classroom vary by state but generally include the 180+ day academic year, 50-minute classes with curriculum focusing on individual content areas, with students trained to focus on the teacher who is, typically, conducting lecture-based

instruction (Silva, et al., 2015). This traditional system, according to DeLorenzo, et al., 2009) is one in which "time is the constant and learning is the variable" (p.18).

For the last 100 years, the number of credits successfully earned during a student's 9 through 12 education process has determined high school graduation. Individual state's graduation requirements have been defined by state statutes and regulations and are to be considered the minimum requirement for completion of a public high school program. However, local school boards may require graduation competencies over and above those mandated by the state (Silva, et al., 2015).

States using the Carnegie Unit as a basis of student readiness for college or career vary from a minimum requirement of 20-24 credits (Silva, et al., 2014). Nebraska does not use the Carnegie Unit and requires 200 credit hours; New Jersey implemented Common Core Content Standards and requires 200 credit hours for graduation (Education Commission of the States, 2015). New Hampshire eliminated the Carnegie system altogether in 2005, allowing each school district to establish their own graduation requirements based on state minimum core standards (New Hampshire Board of Education, 2014). As indicated, this system varies greatly by state and by definition.

Curriculum

While there is not a national curriculum, in a traditional public school setting curriculum is developed by committees or departments, i.e. the English Department or Science Department, who frame fundamental instruction based on texts provided by publishers and adopted by the district (Jobrack, 2012). States vary in their graduation

requirements; however, it is typical for students graduating from public high schools to have completed the following:

e.g. 4 credits – Language arts (literature, composition, grammar vocabulary)

e.g. 3 credits – Social studies (geography, U.S. and world history, government)

e.g. 3 credits – Mathematics (algebra, geometry, trigonometry, calculus),

e.g.3 credits – Science (physical science, earth science, biology, chemistry, physics)

Students generally take an additional 4-8 credits of electives such as physical education, family and consumer science, health, keyboarding, computer science, woodworking, auto mechanics, dance, music, and/or art (Education Commission, 2016; Home Educators Association of Virginia, 2015).

Teacher Role

In any education paradigm, teaching is complex. In a traditional high school setting, the teacher manages the classroom environment, sets the mood, and delivers the required curriculum following a rigid schedule of set hours per class and days of instruction per year. Typically, a public high school teacher will have six to seven classes of 38 to 40 students for a total of over 228 students per day. Teachers often work in isolation to develop their own set of rules and expectations for students; this may vary greatly from classroom to classroom (Down, 2012).

The teacher develops lesson plans, activities, and assessments intended to help students develop skill in a subject area (Down, 2012; U.S. Department of Education, 2008). Instruction is generally text-driven and instructor-led with preplanned lessons

often taught from year to year with little change (DeLorenzo, et al., 2009; Lamperes, 2005; Levine, 2009). Additionally, teacher instruction includes preparing students to take standardized tests used to measure student achievement (Sturgis, et al., 2011; Vogler, 2002). Often school funding is dependent upon outcomes of those high stakes tests, as discussed later in this chapter, and in some instances these standardized tests influence a teacher's salary or retention (Sturgis, et al., 2011; Vogler, 2002).

A teacher is expected to differentiate instruction for students that learn at different paces and provide instruction for students from a variety of backgrounds. Many teachers also develop relationships with their students and often guide them both educationally and emotionally (Spahiu, 2013).

Student Role

Students advance through the K-12 public school system by demonstrating knowledge and/or general aptitude in the core subjects of math, science, language arts, and social studes (Jerald, 2009; Levine, 2009; Robinson, 2010). Students are required to provide evidence of their learning by successfully completing summative assessments (Outhouse, 2012; Silva, et al., 2015; Darling-Hammond, et al., 2011). An extensive search for description of the role of a student in the classroom only reinforces that each classroom is as individualized at the classroom teacher. Some require students to be passive learners, taking notes from lecture-based instruction while others allow students to create their own set of expectations for the course. Teaching and learning cannot be the same in every setting as individuals and communities differ vastly. (Outhouse, 2012; Silva, et al., 2015; Darling-Hammond, et al., 2011). What is implied, however, is that all

students are expected to learn at the teacher's pace of instruction unless identified for special services.

Assessment

Assessment in a traditional public school often takes the form of pen and paper testing where students demonstrate knowledge by producing the correct answers, in effect merely a summation of information. While formative assessment takes place, most emphasis is placed on summative assessments (Schunk, 2008; Sturgis, et al., 2011; Sturgis, Patrick, and Pittenger, 2012). In most traditional school programs, a D- (although the lowest level of achievement) is considered sufficient for a student to move to the next level of instruction or content (College Board, 2015; DeLorenzo, et al., 2009; Robinson, 2010; Silva, et al., 2015). The following information provided by The College Board (2015) is a typical grading scale and illustrates that a student earning anything below a C should not be considered proficient as learning appears to be limited. Regardless, students advance to the next level of complexity with a learning proficiency of 60 percent and above.

- A = 90 - 100 percent
- B = 80 - 89 percent
- C = 70 - 79 percent
- D = 60 - 69 percent
- F = below sixty

As attendance and social skills are averaged into the assigned grade, there is not an actual indication of each student's actual skill level (Outhouse, 2012).

Post-Millennium School Reform

While the traditional system of education has served some students well, it has left many students behind (Layton, 2014; Organisation of Economic Co-operation and Development, 2012; Vernez, et al., 2006). As noted in Chapter 1, the 2008-09 average graduation of high school students in the United States was 75.5 percent with the lowest graduation rate being 56.3 percent in Nevada and the highest, 90.7 percent, in Wisconsin (Stillwell and Platt, 2011). Graduation rates continue to be considerably lower for poor and minority students (Kidron & Darwin, 2007; Peterson, Lastra-Anadon, and Woessman, 2011). As such, the case can be made that the industrial-revolution *factory-based* system of education does not best serve the educational needs of students in today's society (Berrett, 2012; Jerald, 2009; Levine, 2009; Robinson, 2010).

Historically, the focus of public schools has been more on teaching than learning (DeLorenzo, et al., 2009; Pace, et al., 2015; Sturgis, et al., 2010). In the current era of accountability, particularly following the enactment of No Child Left Behind, the traditional educational system is driven by standardization of instruction, standardization of curriculum, and standardization of assessments (Levine, 2009; Silva, et al., 2015). The Carnegie Foundation the United Nations, the U.S. Department of Education, and other experts state that schools may need to change radically to meet the needs of students who will be released into the labor force in a world that is continually and rapidly evolving (DeLorenzo et al., 2009; Lamperes, 2005; Robinson, 2010; Silva, et al., 2015; United Nations, 2012; Wagner, 2008).

No Child Left Behind Act

The Elementary and Secondary Education Act (ESEA) of 1965 was designed to equalize K-12 public education by infusing federal dollars into the public school system, with a specific focus on increasing educational outcomes for disadvantaged students (Camera, 2015; Klein, 2015; Michelman, 2012; Davidson, Reback, Rockoff, and Schwartz, 2015). ESEA has been reauthorized several times since 1965, significantly with the No Child Left Behind Act (NCLB) signed into law in January 2002, by President George W. Bush, and most recently with the Every Student Succeeds Act passed in late 2015. With NCLB, mandates were created to place highly qualified teachers and paraprofessionals in schools and to ensure that schools were using scientifically based educational strategies. Under NCLB, each school district in the country was to be held responsible for learner outcomes and to demonstrate Annual Yearly Progress (AYP) in student achievement evidenced by annual standardized testing (Klein, 2015; Moran, 2009; EdWeek, 2011). As defined under Title I of NCLB, Adequate Yearly Progress was the measure by which "schools, districts, and states are held accountable for student performance" (Moran, 2009, p. 20; Research Center, 2011) and 100 percent proficiency in all core classes was to be accomplished by 2012, later extended to 2014 (Klein, 2015; Moran, 2009).

Prior to NCLB, state funding and local taxes comprised 90 percent of school funding (Davidson, et al., 2015; Michelman, 2012). Monies allocated with NCLB heralded in an unprecedented expansion of the federal role in K-12 education decision-making (Klein, 2015; Michelman, 2012). NCLB, in effect, increased governmental

oversight of the academic achievement of all students, and with Title I dollars, sought to target low-performing groups such as second-language learners, special education students, and poor or minority students (Kidron, et al., 2007; Klein, 2015).

By 2015, many low-performing schools were documenting gains in student achievement (Davidson, et al., 2015). According to Education Secretary Duncan, "We put $5 billion into turning around low-performing schools and that's an impressive investment . . . It all hasn't all gone perfectly, but we have high school [graduation] rates at all times highs" (Klein, 2015). While successes were realized with the implementation of NCLB, specifically drawing attention to our most disenfranchised and disadvantaged students, complaints about NCLB included insufficient governmental funding; unrealistic accountability issues; diversion of resources from curricular areas such as social studies, music, and art; and over-standardization of curricula (Adequate Yearly Progress, 2004/2011; Dee and Jacobs, 2010; Klein, 2015; McNeil, 2011; Michelman, 2012).

An additional and unforeseen consequence of the high-stakes mandates set forth in NCLB were allegations (many substantiated) of districts altering test materials to meet AYP requirements (Flock, 2011). It was not mandatory for states to abide by the terms of NCLB but Title I funding was closely tied to compliance (Davidson, et al., 2015; Michelman, 2015; Klein, 2015). According to Davidson, et al. (2015), "Wide cross-state variation in failure rates resulted from how states' decisions interacted with each other and with school characteristics, like enrollment size, grade span, and ethnic diversity" (p. 347). Schools failing to meet AYP suffered sanctions such as staffing changes, loss of funding, and in worst-case scenarios (schools that continually failed to meet AYP) state

takeovers or privatization of their program (Moran, 2009; Research Center: Ed Week, 2011; U.S. Department of Education, 2011).

Many educators contended that the criteria of achieving 100 percent grade level proficiency in math and science for all students by the 2012 school (extended to 2014) year was simply not feasible (Adequate Yearly Progress, 2004/2011; Michelman, 2015). As early as 2011, U.S. Secretary of Education, Arne Duncan, informed Congress that NCLB had been "creating a slow-motion train wreck for children, parents and teachers" (Dillon, 2011, p. A12). Many states applied for, and were granted, waivers to NCLB and while some states met the requirements of the waivers, others struggled, resulting in federal review and even a rescinding of the waiver in the case of Washington State (Klein, 2015).

Race to the Top

In 2008, newly elected President Barack H. Obama began working with the Department of Education, evaluating and expanding school reform. On February 8, 2012, with the stated intent of supporting educational reform and research-based innovation, President Obama announced the availability of education funding for his new Race to the Top (RTT) competitive grant. States were able to submit proposals for the development and implementation of innovative education strategies, and if awarded, would receive flexibility from “the arduous mandates in No Child Left Behind” (Birch, 2012, n.p.). In addition to state awards, President Obama established Race to the Top-District (RTT-D) which set aside an additional 40 million dollars for individual districts submitting proposals at the local level (U.S. Department of Education, 2015).

During Phase One of Race to the Top, only two states were able to meet the criteria set forth by the federal government, sharing in 600 million dollars. Ten states qualified during Phase Two (U.S. Department of Education, 2012). Phase Three grants consisted of 200 million dollars awarded to seven additional states in December 2011 (U.S. Department of Education, 2012). Three phases of Race to the Top were completed as of 2014 with over four billion dollars of Federal funding being set aside for allocation to states that purportedly had the most innovative educational proposals (Aud and Hannes, 2010; U.S. Department of Education, n.d.). Twenty-one individual districts won four-year grants in 2012 and 2013 (U.S. Department of Education, 2015, Awards).

Race to the Top was an augmentation to NCLB that was competitive and rigorous with award winners facing intense scrutiny throughout the grant cycle. According to U.S. Department of Education (2015), RTT resulted in significant change in our public education system, particularly in the development of rigorous standards, better assessments, and aligning policies and structures to enhance college and career readiness, particularly for lowest-performing schools (U.S. Department of Education, 2015, Fundamental; U.S. Department of Education, 2015, Final). Long-term results indicate a trend of higher graduation rates and an increase in Advanced Placement courses taken. However, assessing results from multiple systems undergoing simultaneous change takes time (U.S. Department of Education, 2015, final). Though there have been documented successes under Race to the Top, funding was completely cut in 2015 attributed to 1) the controversy surrounding federal intrusion into local education and 2) the potential

widening of achievement gaps between winning and losing states and/or districts (Strauss, 2014).

Common Core Standards

Backed by evidence that student mastery of standards leads to readiness for higher education and workforce, Common Core State Standards (CCSS) were released in draft form in 2009 in an effort to raise graduation rates in secondary and postsecondary schools (Common Core State Standards Initiative, 2015). CCSS were derived from successful national and international models and provide academic benchmarks that inform students, teachers, and parents/guardians of the progress the student is making toward specific educational goals (Common Core State Standards Initiative, 2011; Kidron et al., 2007; Phillips, et al., 2010). Individual state standards in place had already laid the foundation of assessment and accountability for NCLB (Kidron, et al, 2007; Michelman, 2015).

A 2015 report issued by the Civic Foundation includes studies conducted by The National Governor's Association Center for Best Practices (2009/2014) and the Council of Chief State School Officers (2009/2014) asserting these Common Core State Standards provide an understanding of what students are expected to learn and have been designed to be:

- aligned with college and work expectations;
- clear, understandable, and consistent;
- evidenced based;
- rigorous in content and application of knowledge through high-order skills;
- developed to build upon strengths and lessons of current state standards and;

- informed by other top performing countries, so that all students are prepared to succeed in the global economy and society.

Developed with input from a vast array of teachers, school administrators, and education experts, the final English and math standards were released in June 2010 (Kidron, et al.; 2007). As of January 2015, all but seven states and Puerto Rico had fully adopted rigorous common college and career ready standards in math and reading (Common Core State Standards Initiative, 2015) and as with NCLB, Title I fund distribution was contingent on state adoption of CCSS by 2015 (Kidron et al., 2007; Sloan, 2010).

From the outset there has been controversy surrounding Common Core State Standards. While some states were early adopters (such as Kentucky and Hawaii), others have yet to adopt CCSS (Common Core, 2015). California, Virginia, Texas, and Massachusetts feel the CCSS are not challenging enough while other states feel the standards are too wieldy (Strauss, 2014). As with other reform efforts, there have been complaints of insufficient funding and concerns that teacher training, curricula, and assessment need to change dramatically to adapt to CCSS (Conley, 2010; Kidron, et al., 2007). Finally, many educators contend that no set of grade-specific standards can fully reflect the great variety of abilities, needs, learning rates, and achievement levels of students in any given classroom (Common Core, 2015).

Common Core State Standards are a subject of great controversy and the future of CCSS remains to be seen. In response to much of the debate surrounding CCSS Education Secretary Duncan, in an interview with Klein (2015), offered the following:

> What we're getting finally for the first time in decades is the truth, and we're assessing more critical-thinking skills . . . Folks are doing stuff that

> they've never done before, teaching to higher standards and trying to assess in different ways. Through that change, if we can keep high school graduation rates going in the right direction, if we can keep reducing dropout rates, that's a huge thing.

Every Student Succeeds Act

In late 2015, after significant bi-partisan effort going back to 2001, Congress approved the Every Student Succeeds Act (ESSA), replacing No Child Left Behind. In the continuing effort to close achievement gaps, this reauthorization of the 50-year-old Elementary and Secondary Education Act was developed collaboratively through work with Democrats, Republicans, civil rights groups, business leaders, and the U.S. Department of Education (Klein, 2015). Signing the law into effect on December 10, 2015 President Obama stated, "With this bill, we reaffirm that fundamentally American ideal—that every child, regardless of race, income, background, the zip code where they live, deserves the chance to make of their lives what they will" (U.S. Department of Education, 2015, p. 1). This bipartisan measure continues to build on successes realized from the NCLB Act of 2002 while giving more freedom to states, focusing ever-increasingly on innovation in education, and expanding services to Pre-K students. The following is an excerpt from the U.S. Department of Education's website (ed.gov/essa): ESSA includes provisions that will help to ensure success for students and schools. Below are just a few. The law:

- Advances equity by upholding critical protections for America's disadvantaged and high-need students;
- Requires—for the first time—that all students in America be taught to high academic standards that will prepare them to succeed in college and careers;

- Ensures that vital information is provided to educators, families, students, and communities through annual statewide assessments that measure students' progress toward those high standards;
- Helps to support and grow local innovations-including evidence based and place-based interventions developed by local leaders and educators-consistent with our Investing in Innovation and Promise Neighborhoods;
- Sustains and expands this administration's historic investments in increasing access to high-quality preschool;
- Maintains an expectation that there will be accountability and action to effect positive change in our lowest-performing schools, where groups of students are not making progress, and where graduation rates are low over extended periods of time.

A focus on high learning standards, quality preschool, and the elimination of federally mandated learning targets moves the nation away from the one-size-fits all NCLB Act and provides more freedom to states. The success of this reauthorization remains to be seen. The U.S. Department of Education plans to work with states and districts during 2016 to begin the implementation process (U.S. Department of Education, 2015).

The Case for Competency-Based Education

There have been many difficulties in the thirteen years since the 2002 enactment of NCLB. Despite the worthiest of intentions and a significant allotment of federal dollars, criticism has come from parents, educators, students, and politicians for each of the ambitious programs coming from the U.S. Department of Education (Datnow and

Kemper, 2003, Duncan, 2015; Gollnick & Chinn, 2009; Vernez, Karam, Mariano, and DeMartini, 2006; Moran, 2009; Silva, et al., 2015; Vernez, et al., 2006). Although each reform effort has resulted in modifications to our educational system, none have led to the level of change anticipated when they were enacted (Aud, et al., 2010; Gross, et al., 2009; Silva, et al., 2015). While there has been a notable increase in graduation rates in the past ten years, particularly for students of color, there has not been a consistent measurement of graduation and dropout rates across states (Civic Enterprises, 2015; Herman and Linn, 2013). Reporting varies and may include dropout rates which include grades seven to twelve or nine to twelve. Graduation rates may or may not include GED completers or a sampling percentage of home schooled children (Civic Enterprises, 2015; Herman and Linn, 2013).

Although there has been an overall jump in graduation rates of approximately ten percent since NCLB was enacted, those rates are beginning to level off in some areas and drop in others (Civic Enterprises, 2015). The pattern of flattening of graduation rates and escalation of dropout rates may be attributed to a number of factors including, but not limited to: unequal school funding, greater progress being demonstrated in districts that have placed an emphasis on innovation, unequal distribution of student demographics (Civic Enterprises, 2015; Herman and Linn, 2013). The evidence of unequal school funding is reported in a GradNation (2015) report stating:

> Nationwide, the wealthiest of school districts receive 15.6 percent more funds from state and local governments than the poorest 25 percent of school districts. This gap, equal to approximately $1,500 per student, has increased by 44 percent since 2001-02 (p. 34).

States that serve the greater percentage of our nation's students also have the largest percentage of dropout factory high schools that post 60 percent and below graduation rates (Civic Enterprises, 2015).

Despite problems with NCLB, Race to the Top, and CCSS, there is agreement among experts that we need to continue to build on the successes each effort has produced (R. DeLorenzo, personal communication, 2011; Silva, et al., 2015; Civic Nation, 2015). The bi-partisan effort that produced 2015's ESSA is an indication that lawmakers and educators acknowledge the work still to be done. Merely looking at increases in graduation rates among students of color does not provide a comprehensive understanding in the gap that still exists in academics. Disturbingly, "25 percent of high schools with the highest percentages of Black and Latino students do not offer Algebra II, and a third of those schools do not offer chemistry. Both of those courses are considered necessary to prepare for college, or a future career (Civic Enterprises, 2015, p. 47). We need to continue to focus our lens on the needs of all schools and students.

Competency-Based Education

As we continue to identify barriers to student success, it is recognized that the traditional manner in which curriculum and instruction has been delivered for the past 100 years needs to change in order to prepare all students for college and career in a rapidly changing world (Haystead, 2009; Lamperes, 2005; Silva, et al., 2015; United Nations, 2012). One paradigm shift occurring in various public schools around the country is the move from traditional to competency-based education (CBE) in which a student moves at his/her own pace through locally developed, benchmarked curriculum,

not bound by hours in the seat; thus "learning is the constant and time is the variable" (DeLorenzo, et al., p. 19, 2009). Table 1 provides comparative differences between traditional and competency-based education:

Table 1. Traditional Versus Competency-Based Education

Traditional	Competency-Based
Time-based	Self-paced, fluid classrooms
Teacher-led instruction	Two-way individualized learning
Text-driven	Student constructed
Fact-oriented memorization	Problem-solving and innovation
Set curriculum	Flexible curriculum
Grades based on performance, attendance, standardization	Mastery - guided benchmarks, common, standards, individual learning plans
Individualized	Collaborative
School model based on industrialization	Introduces 21st century skills
Assessments are primarily summative	Continual formative assessments leading toward summative project/presentation

While not a new concept, competency-based education (also known as personalized mastery, performance-based learning, or proficiency-based education) is increasingly recognized as an effective student-centered approach to curriculum and instruction which incorporates 21st century skills in a transparent curriculum that is authentic and relative to students and the community at large (Haystead, 2009; Lamperes,

2005; Silva, et al., 2015; United Nations, 2012). Figure 1 provides an International Association for K-12 Online Learning (iNACOL) generated map illustrating the progress of CBE implementation across the United States (a larger version may be found at http://www.inacol.org/wp-content/uploads/2016/04/2016-Snapshot-of-CBE-State-Policy_timestamp.pdf).

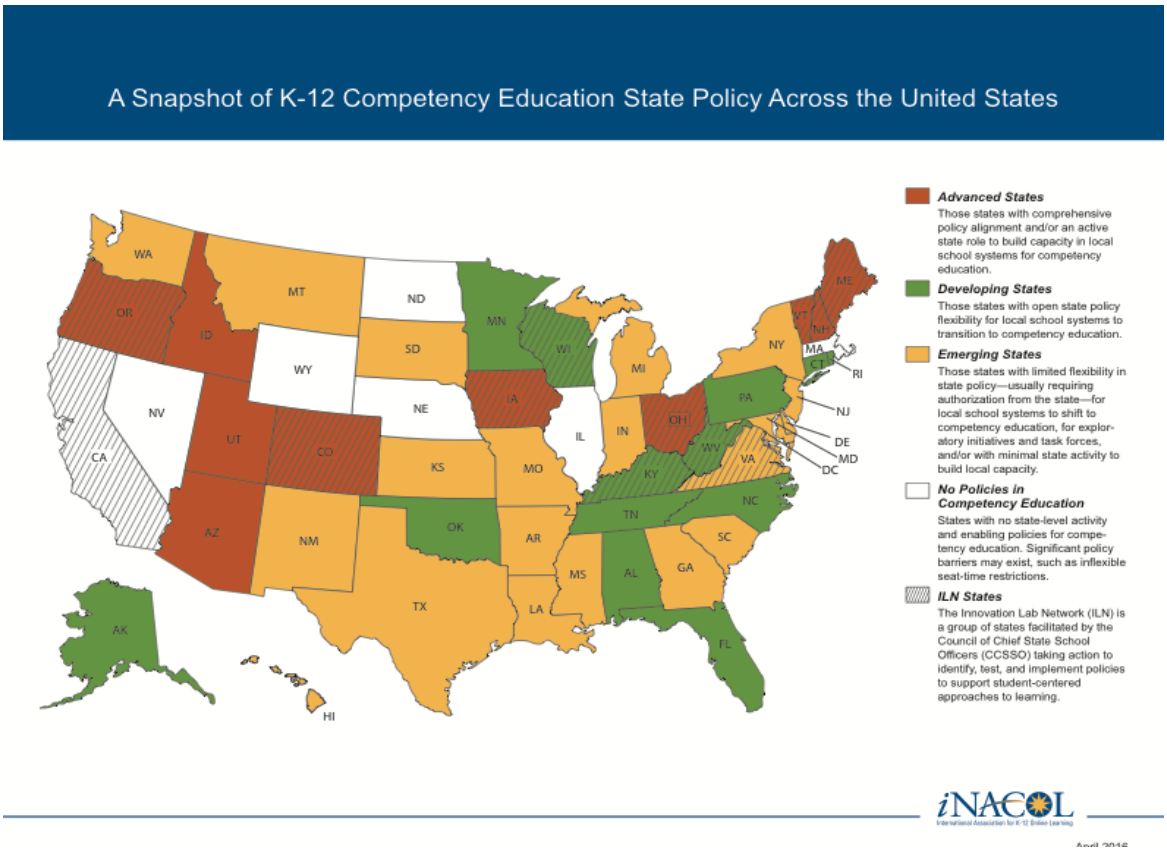


Figure 1. A Snapshot of Competency Education State Policy

In 2011, a summit of educators, researchers, and the Council of Chief State School Officers (CCSSO) met to facilitate collaboration between various sites around the United States where competency-based education was being designed and implemented

in isolation (Sturgis, et al., 2011). During this summit, a common framework for CBE was developed. The five benchmarks listed below set the standard for high-quality CBE:

1. Students advance upon mastery
2. Competencies include explicit, measurable, transferable learning objectives that empower students
3. Assessment is meaningful and a positive learning experience for students
4. Students receive timely, differentiated support based on their individual learning needs
5. Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions

During the summit it was stated, "Competency-based efforts are certainly not a silver bullet; only high-quality implementation will produce meaningful results. All five components of the definition need to be successfully implemented to ensure equity and excellence" (Sturgis, et al., 2011, p. 6).

In 2014, the U.S. Department of Education officially recognized the competency-based education model and, on its website, stated the following:

> Transitioning away from seat time, in favor of a structure that creates flexibility, allows students to progress as they demonstrate mastery of academic content, regardless of time, place, or pace of learning. Competency-based strategies provide flexibility in the way that credit can be earned or awarded, and provide students with personalized learning opportunities. These strategies include online and blended learning, dual enrollment and early college high schools, project-based and community-based learning, and credit recovery, among others. This type of learning leads to better student engagement because the content is relevant to each

> student and tailored to their unique needs. It also leads to better student outcomes because the pace of learning is customized to each student.

A transparency of standards and clear learning expectations in CBE enable students to take ownership of their role as a learner, fostering more engagement and a vested interest in the outcomes (Dewey, 1938; DeLorenzo, et al., 2009; Marzano, 2010).

Curriculum

Competency-based approaches to curriculum delivery and assessment are as varied as the schools implementing them (Cavanagh, 2012; DeLorenzo, et al., 2009; Jerald, 2009; Levine, 2009; "Re-Inventing Scools," 2011). Locally focused reform initiatives are personalized school-to-school and district-to-district; however, the overall paradigm profoundly deviates from traditional teacher-driven instruction by offering a student-centered approach that positions teachers as collaborators and requires students to take responsibility for their own learning (DeLorenzo, et al., 2012; Haystead, 2010; Lamperes, 2005; Levine, 2009).

Much like traditional curriculum, the overarching core standards of CBE include language arts, mathematics, sciences, and social studies as well as incorporating electives into the curriculum (Common Core, 2015; Stack, 2013). What is different is the manner in which students demonstrate proficiency for each standard. Individualized education plans differ greatly for students and guide the learners to "transfer knowledge and skills in and across content areas" (Stack, 2013). Curriculum focuses on large concepts, often thematically and interdisciplinary with embedded standards (Schunk, 2008). Educational goals are driven by individual student plans and curriculum delivery and assessment becomes student-centered.

Teacher Role

DeLorenzo, personal interview, 2011), described the ideal competency-based teaching/learning model as consisting of 40 percent direct instruction, 40 percent peer teaching/learning, and 20 percent self-directed learning (40/40/20). However, he stated, this innovative and student-centered approach to learning cannot be rigid or linear. Using clearly defined objectives and outcomes (derived from state or Common Core standards), teachers and students collaborate to develop projects and assessments that build toward personalized mastery (Darling-Hammond, 2006). Teachers facilitate this process by providing planning and guidance with the student or student group. Teachers also provide students with frequent benchmark assessments, monitor individual progress, and provide a learning environment that is interdisciplinary, integrated, and based on a project-based curriculum (DeLorenzo, et al., 2009; Jerald, 2009). In this competency-based model of curriculum delivery and assessment, teachers become guides (facilitators) on the student's educational path rather than the traditional dispensers of information or *sage on the stage* (Jerald, 2009; Rudner and Schafer, 2002; Sullivan, 2012).

A successful CBE model incorporates two-way individualized learning between students, teachers, and peer groups. This requires a flexibility from teachers unknown in a traditional classroom (DeLorenzo, et al., 2009; Lamperes, 2005; Marzano, et al., 2001). DeLorenzos' 40/40/20 model ideally allows teachers to use 60 percent of their time working directly with students needing more scaffolding in their learning. In *Delivering on the Promise* (2009), DeLorenzo, et al. state, "students need teachers who will actively participate by guiding them in their individualized learning, working closely with those

students needing more help" (p. 74). Coincidentally, a teacher working in a competency-based high school is quoted as saying, "It is more effective teaching when you are sitting down working with someone on what they need to work on at that particular moment. Talk about hundreds of teachable moments every week!" (Sullivan, 2012, p. 48).

Even the physical environment in a competency-based classroom will look different from a traditional classroom that typically consists of desks facing the front of the room where the teacher stands in front and conducts instruction. Learning centers replace the rows of desks; seating arrangements that encourage small group learning, peer instruction, and small group instruction from the teacher are paramount (DeLorenzo, et al., 2009). Each day in a classroom should look different as the needs of students in various stages of the learning process are met (DeLorenzo, et al., 2009; Haystead, 2010; Lamperes, 2006).

Student Role

An effective competency-based educational model recognizes that students need to define themselves as learners and fosters that in a setting in which the students guide their own learning with 1) teacher as a facilitator, 2) end goals always in mind, and 3) multiple opportunities to check and adjust as needed (DeLorenzo, et al., 2009; Lamperes, 2005). Using clearly defined objectives and outcomes, students work in collaboration with teachers (facilitators) to develop projects and assessments authentic to their individual experiences and individualized learning plan (DeLorenzo, et al, 2009; Haystead, 2010). Students may choose to work with the teacher in a direct instruction environment, work collaboratively with peers, or work individually to meet identified

benchmarks or targeted goals. Differentiated instructional strategies give students *voice and choice* in developing outcomes that provide acceptable evidence of proficiency of predetermined benchmark or core content standard. This approach relies heavily on student-centered learning, active learning, and cooperative learning within a classroom (Snow-Renner and Lauer, 2005; McRel, 2000).

Rich and authentic learning opportunities are imperative for student success in a competency-based learning model (DeLorenzo, et al., 2009). Scaffolding is often necessary to reteach learners how to actively seek information. However, as they become more engaged, students develop into effective, self-directed learners (DeLorenzo, et al. 2009; Lamperes, 2005). CBE allows students to advance through the curriculum at their own pace which may mean they are working independently toward proficiency or mastery in one subject and one-on-one with a teacher toward basic understanding (emerging learner) in another. The ability to learn in an individualized, self-paced manner empowers student ownership of learning (DeLorenzo, et al., 2009).

Assessment

With competency-based education, learning requires students to 1) focus on the learning goal, 2) recognize what it takes to reach that goal, and 3) have the affective desire to attain the predefined outcome. Competency-based education classrooms become models of inquiry driven, real life application of learning generally using measures of achievement termed *emerging, nearing proficient, proficient, and advanced proficient* (DeLorenzo, et al., 2009). To be an emerging student means that you are in the

process of learning, not that you cannot learn, or chose not to learn. The fundamental process is illustrated below in Figure 2:

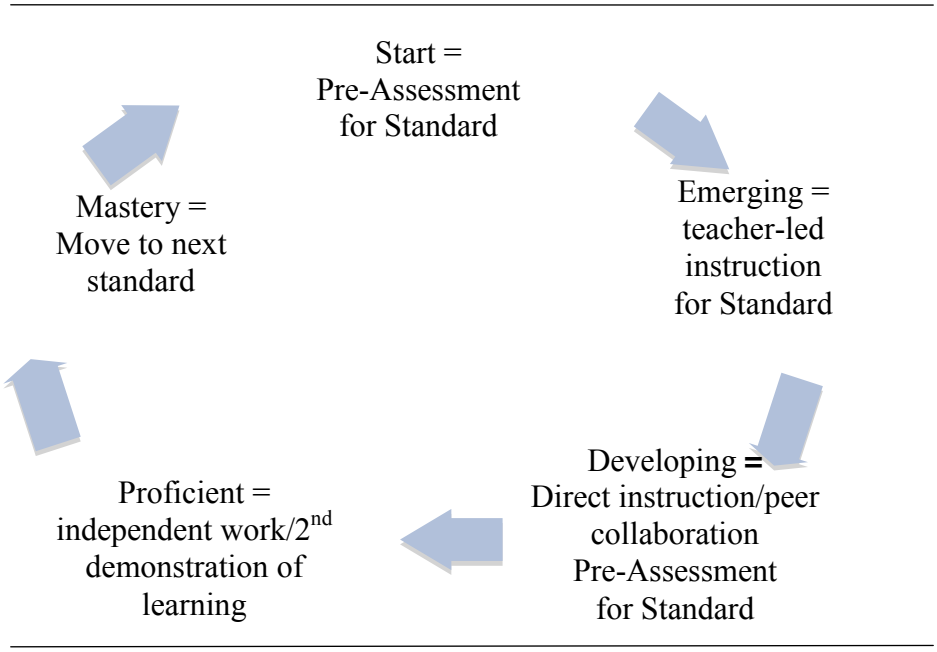


Figure 2. Competency-Based Education Learning Process

This model creates transparent and consistent expectations for students. Rigor increases for each level; not all students will reach mastery but all students must reach proficiency - equal to 80 percent or above in content knowledge (DeLorenzo, et al, 2009; Haystead, 2010; Silva, et al., 2015; U.S. Department of Education, n.d.). Profoundly, CBE and CCSS analyze and evaluate learning on an individual basis rather than through group comparison (Jerald, 2009; Lamperes, 2005; Patrick and Sturgis, 2013). In the CBE model, failure or poor performance may be part of the student's learning curve, but it is not an outcome (Sturgis, et al., 2010; Sturgis, Patrick, and Pittenger, 2011).

Darling-Hammond (1993) states that, "when assessment allows students to achieve challenging goals in authentic ways, it creates more than just high scores - it creates confident and capable learners" (p. 17). Formative assessments are considered critical to student learning in the CBE model and are developed collaboratively between student and teacher. Authentic assessments are developed and agreed upon by teacher/student and may range from traditional written assignments to large and multi-layered projects (DeLorenzo, et al., 2009). Capacity matrices are used to articulate the sequence of goals necessary to reach a final target or learning goal and are archived in a manner easily accessed by both the student and the teacher. These matrices monitor student completion of benchmarks along the trajectory toward completion of a specific standard (DeLorenzo, et al., 2009; Jerald, 2009).

Common Core and Competency-Based Education

As most states have adopted Common Core State Standards (Common Core, 2011), it should be noted that Common Core and the competency-based model of curriculum delivery and assessment appear to complement each other and, indeed, are intricately woven together (Marzano, 2010; Sullivan, 2012). Both approaches have students interpret and make sense of the subject, identify where they stumble, and know what they do when they do not understand the material (Cerbin, n.d.). Each and every student should be able to answer these three key questions at any given time:

- What am I learning right now?
- Why am I learning it?

- What do I do if I get stuck?

"I don't know" no longer exists in the vernacular because students are using their individualized projects and papers to demonstrate their own progress toward proficiency or mastery.

Standardized Testing and Competency-Based Education

There has been a recent movement to incorporate performance tasks (such as those that are included in Lindsay High School's assessments) in standardized testing done through two assessment consortia – the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC). In August and September of 2015, education chiefs from PARCC met to discuss advancing the creation and adoption of performance tasks aligned with Common Core State Standards (Regents of the University of California, 2015). Performance level descriptors (PLDs) were developed as a form of assessment that indicates what an average student should be able to demonstrate on grade-level standards (Regents, 2015). Their move toward the inclusion of performance tasks on standardized assessments has the good intention of encouraging better teaching and better learning that students can apply to their lives (Regents, 2015).

With equal optimism, Smarter Balanced has adopted performance tasks to measure a student's ability to demonstrate critical-thinking and problem-solving skills. As stated on the Smarter Balanced website (smarterbalanced.org, 2015) in the assessment portal:

> Performance tasks challenge students to apply their knowledge and skills to respond to complex real-world problems. They can be best described as collections of questions and activities that are coherently connected to a single theme or scenario. These activities are meant to measure capacities such as depth of understanding, writing and research skills, and complex analysis, which cannot be adequately assessed with traditional assessment questions. The performance tasks are taken on a computer (but are not computer adaptive) and will take one to two class periods to complete.

Collectively, both PARCC and SBAC seek to combine high standards with tasks that require students to "explain their thinking, to write coherently and to demonstrate conceptual understanding" (Kane, 201). In 2015, 28 states and the District of Colombia administered either the PARCC or SBAC exams in the first year of full implementation of both assessments (Kane, 2015).

Despite the best of intentions that required much innovation and forward-thinking, the future of both PARCC and SBAC is in peril. Of the original 25 states in the PARCC consortia, only 8 remain and several are also considering opting out (Vander Hart, 2015). Smarter Balanced is also experiencing a loss of membership with only 19 member states participating and of the remaining states, more are considering withdrawing due to stresses on state budgets, difficulties in the automation of performance task scoring, and comparability of scores across states (Kane, 2015, Vander Hart, 2015; Whitehurst, 2015).

Self-Efficacy and Competency-Based Education

During the 1970's, renowned psychologist Albert Bandura developed a framework for his Social Learning Theory - later refined and renamed Social Cognitive Theory (McLeod, 2016). Central to Bandura's Social Cognitive Theory (SCT) is self-

efficacy. In very simple terms, self-efficacy is a person's belief in their own abilities to deal with situations of varying degrees of difficulty (Bandura, 1977; Cherry, 2015; Downey, 2002; McLeod, 2016). Potentially impacting behaviors and motivation, self-efficacy plays a role in not only how a person feels about his/her self, but whether or not they are able to successfully achieve his/her goals (Bandura, 1974; Cherry, 2015; McLeod, 2015).

Working toward mastery, the basic tenet of CBE, supports and strengthens self-efficacy. According to Bandura (1994), mastery experiences provide the most effective strategy for developing self-efficacy. In a school environment, such as the one studied, guided mastery supports both academic and emotional growth. Bandura's SCT (1994) states, "Students' belief in their capabilities to master academic activities affects their aspirations, their level of interest in academic activities, and their academic accomplishments" (Section IVD, para. 4). According to Bandura (2005), "In this view, people are self-organizing, proactive, self-regulating, and self-reflecting. They are contributors to their life circumstances not just products of them" (p. 1).

The development of self-efficacy in a competency-based learning environment is supported by the transparency of program structure as well as the focus on peer learning. In the language of CBE, a learner is one who has the understood ability (self-efficacy) to progress through the learning continuum from very little knowledge (emerging), working through the steps toward proficiency, and ultimately working toward mastery of content (DeLorenzo, et al., 2009). These steps along the continuum, in conjunction with learning

how to manage failure and build on experiences, are instrumental in developing a strong sense of self-efficacy (Bandura, 1977).

Transitioning from Traditional to Competency-Based Education

The transition from traditional to CBE is difficult, requiring innovation, flexibility, and an approach that honors the need to continuously check and adjust (Anderson, 2015; DeLorenzo, 2009, et al.; Noble, 2006; Ruyle, 2015). Anderson (2015) and Ruyle (2015) both indicate that it is critical to understand that changing our public school model is a process, often referred to second-order change. Marzano (2005) calls second-order change a process that dramatically alters the fundamental structure of traditional education; successful second-order change requires buy-in from all stakeholders. Delorenzo (personal communication, 2011) and Marzano, et al. (2001) have indicated that the process of second-order change requires implementation of CBE to occur concurrently system-wide which presents numerous challenges.

Issues that may arise during transformation include, but are not limited to, the time educators must invest in the change process (Noble, 2006; Sullivan, 2012; Sullivan and Downey, 2015), effective communication between administration and faculty (Ruyle, 2015; Sullivan, 2012; Sullivan and Downey, 2015), and alignment with traditional assessment systems (Sullivan, 2012; Sullivan and Downey, 2015). Additionally, teachers and school administrators, especially those who have witnessed previous educational reform efforts fail, may resist the type of change necessary to implement this new educational paradigm (Ruyle, 2014).

Mitigating these challenges requires strong leadership, systems transparency, and moral purpose (Anderson, 2015; DeLorenzo, et al., Ruyle, 2015, Noble, 2006; Sullivan, 2012; Sullivan and Downey, 2015) supporting the creation of an environment where others feel empowered to contribute to the process, knowing their perspective is weighed equally with others (Sullivan, 2012). As Anderson (2015) stated, "Changing educational paradigms in schools is difficult and messy work. Educational leaders capable of leading large scale changes in practice know that change is clearly not a single event, but a process" (p. 32).

Student Perspectives in Education Reform

Strikingly absent from the literature are the perspectives of students enrolled in CBE public schools. Experts agree bringing the students to the table with you is the most effective way to honor student perspectives as being as important as adult perspectives in school reform efforts (Mitra, 2009; Marzano, 2010; Silva, et al., 2015). It is a necessary (albeit missing) component in fostering an environment where everyone's vested interest is improving the schools and the community (Carini, Kuh, and Klein, 2004, Mitra, 2009; Marzano, 2010; Silva, et al., 2015; Sullivan, 2012).

Experts advocate for the inclusion of student perspectives in any education reform effort, particularly at the local level to guide development and implementation of effective education for this generation of learners (Beattie, 2012; DeLorenzo, et al., 2009; Fox, et al., 2013; Haystead, 2010; Marzano, 2010; Silva, et al., 2015; Sullivan 2012). While there is much extant literature about the need for the inclusion of student perspectives in reform efforts, there is a particular need for research that officially

documents student perspectives, particularly as schools transition their programs from the traditional education paradigm toward competency-based education.

The growing body of evidence suggests students, as key stakeholders in the educational process, must be included at the very beginning of any school reform effort and their perspectives added to any and all continuous improvement processes (Beattie, 2012; Busher, 2012; DeLorenzo, et al., 2009; Islam, 2012; Lamperes, 2005; et al., 2012; Sullivan and Downey, 2015). It has been noted that the inclusion of student perspectives improves student engagement and student retention (particularly for disadvantaged and marginalized youth) as well as contributing to sustainable education change and increased academic outcomes (Beattie, 2012; Bishop, et al., 2005; Bray, 2012; Bundick, 2012; Busher, 2012; DeLorenzo, et al., 2009; Fox, et al., 2013; Haystead, 2010; Islam, 2012; Manefield, et al., 2007; Mitra, et al., 2009; Silva, et al., 2015; Student Voice, 2005/2007). As we strive to move our schools forward by implementing innovative reform efforts, student perspectives must be a critical component in the development and implementation of effective teaching/learning environments.

Defining Student Voice

Peer-reviewed articles and papers discussing the inclusion of student perspectives in school reform efforts typically use the term *student voice* (Beattie, 2012; DeLorenzo, et al., 2009; Marzano, 2010; Mitra, et al., 2009; Sturgis, et al., 2011). For the purpose of this study, and to remain consistent with cited documents in this paper, student voice is a term included wherever it is authentic to the cited document.

Student voice is defined as the "individual and collective perspective and actions of young people within the context of learning and education" (soundout.org, 2015, n.p.). Other experts refer to student voice as the deep engagement of youth in ownership of their individualized learning, about self-directed outcomes, and most importantly, about having the power to influence change (Beattie, 2012; Bundick, 2012; Delorenzo, et al., 2009; Haystead, 2010; Sturgis, et al., 2011). Youth, themselves, have noted that student voice is empowerment, action and "allows students to share who they are, what they believe . . . and [that they] should be involved in every aspect of school reform" (soundout.org, 2015).

The increasing presence of student perspectives in education reform can be seen in Student Voice Live!, an annual education summit where students, educators and policy makers collaborate to advance the education community (stuvoice.org) and #StuVoice, which has convened every Monday since August 2012 and also brings students, educators and policymakers together, giving students a platform to have their perspectives included in the dialogue about education issues (stuvoice.com). An education summit hosted by iNACOL and CCSSO, the largest gathering of next generation learning, featured student speakers and panels at their 2015 summit. And strikingly, walk-outs by thousands of students across the country protesting standardized testing (Cassidy, 2015) underscores the increasing activism taking place as youth strive to influence school reform and the changes they want to see. Paying attention to this movement challenges the ideas that student perspective is simply the expression of opinions and recognizes that the inclusion of student perspectives is about having the

power to influence change (Beattie, 2012; DeLorenzo, et al., 2009; U.S. Department of Education, 2009; Haystead, 2010; Islam, 2012).

Conclusion

Chapter 2 provides a brief overview of school reform efforts that have taken place since the new millennium and discusses success and challenges that occurred with each. Research indicates that despite these reforms, the American Public School System continues to graduate large numbers of students that are not grade-level proficient nor prepared to successfully enter college or begin careers (National Academy of Education, 2009; Silva, et al., 2015; United Nations 2012). The chapter continues with a look at competency-based education (CBE) as one alternative that is demonstrating success with learner outcomes and then examines the role of student perspectives in school reform. A hallmark of CBE is the inclusion of those perspectives and experts agree that those perspectives are necessary for lasting school reform (Beattie, 2012; Bundick, 2012; Delorenzo, et al., 2009; Haystead, 2010; Mitra, et al., 2009; Sturgis, et al., 2011).

CHAPTER 3

METHODS AND PROCEDURES

Introduction

State and Federal policymakers, as well as the Carnegie Institute and the United Nations, have identified competency-based education as a promising trend in education reform (Freeland, 2014; Silva, et al., 2015; United Nations, 2012). Marking a sharp departure from the traditional teacher-led, time-based system of public education, this model allows schools to measure student progress in terms of mastery (competency) rather than credit hours. Transforming districts and schools to competency-based education (CBE) is not simply a matter of policy change: it is a fundamental change in the structure inside schools that ultimately allows for students to progress at their own pace through the curriculum with assessments taken only when the student feels adequately prepared to demonstrate proficiency or mastery (DeLorenzo, et al., 2009; district.lindsay.k12; Freeland, 2014; Silva, et al.; 2015; United Nations, 2012).

Currently, 42 states have policies in place that allow students to move more fluidly through their K-12 education based on outcomes which demonstrate academic proficiency as opposed to the traditional teacher-led, text driven, and time-based Carnegie credit system (Cavanagh, 2012; Worthen, et al., 2014). Incorporating student perspectives of their educational experiences in CBE schools is an authentic way to understand the strengths of the CBE model as well as identify ways in which to make appropriate adjustments for emerging CBE programs.

Research Design

Qualitative case study design allows a focused, interactive form of research to occur and has proven to provide understandings of complex issues (Patton, 2002; Maxwell, 2005; Soy, 2006; Yin 2014). Three experts in the field of case study design offer strategies to guide this complicated form of research.

Mirriam (1998), constructivist in her approach to case study design, describes the case as empirical inquiry that asks and answers *how* or *why* and writes that delimitation of a case should be the defining characteristic. She maintains that "the key philosophical assumption upon which all types of qualitative research are based is the view that reality is constructed by individuals interacting with their social worlds" (Merriam, 1998, p. 6).

Yin (2002) also describes case study design as empirical inquiry that asks and answers *how* or *why* and allows a researcher to address a broader range of historical and behavioral issues. Yin (2014) advises the researcher to employ a tight, structured design for case study method and emphasizes the need for multiple sources of evidence in case study in order to triangulate evidence for the same set of research questions. He states:

> The most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry…Thus any case study finding or conclusion is likely to be more convincing and accurate if it is based on several different sources of information, following a similar convergence" (p. 120).

Stake (1995), also a constructivist, offers that researchers should view a case in terms of a *bounded system* that is an object, system, place, or person/group and not a process. He argues that a flexible design allows the researcher to adjust and make major

changes even as they move from design to research but also stresses the importance of review of literature and construction of a theoretical framework for the study.

Stake (2005) identifies an intrinsic case study design as one form of case study. He writes:

> ...we get curious about a particular agency, or when we take the responsibility of evaluating a program. The case is given. We are interested in it, not because by studying it we learn about other cases or about some general problem, but because we need to learn about that particular case. We have an intrinsic interest in the case, and we may call our work intrinsic case study (p. 3).

Stake's intrinsic case study design suggests that researchers who have a genuine interest in the case should use this approach when the intent is to better understand the case. The case is dominant and the study is undertaken because the case itself is of interest (Yazan, 2015).

Given the purpose of this study and the guiding research questions, intrinsic case study design allowed the researcher to focus on the case of Lindsay High School, a school that has recently successfully transitioned from a traditional model to a CBE model. Yin (2014) stated, "One of the most important sources of case study evidence is the interview" (p. 110). In addition to researcher-generated field notes and student-provided artifacts, semi-structured interviews were conducted with ten youth participants and with two adults (a district administrator and an on-site school administrator). Investigating the case of Lindsay High School's CBE model and from the perspectives of youth participants, the following research questions guided the study:

- Q1: What components of the school's competency-based learning model contribute to student success?

- Q2: How have these identified components contributed to student success?
- Q3: What components of the school's competency-based learning model could be improved in order to increase student success?
- Q4: How would improving these identified components contribute to an increase in student success?

Research Context

Community

Lindsay, California is a rural community with approximately 13,000 full-time residents. Located in Central California and nestled in the foothills of the Sierra Madres, agriculture and agribusiness are the backbone of the community. Orange and olive groves spread as far as the eye can see and provide the main source of employment for residents and migrant workers (thelindsaychamber.com). As of 2010 the population of Lindsay consisted of 85.45 percent self-identified Latinos and 14.55 percent identified Non-Hispanic or Latino with an even distribution of male and females (censusviewer, 2011).

This community has faced many challenges. Fewer than 50 percent of residents over the age of 25 have earned a high school diploma and fewer than 6 percent of adults over the age of 25 have earned a bachelor's degree (Towncharts, 2016). The median household income in Lindsay is $27,387, far below the California median income of $58,931 (Lindsay.k12, n.d.; Lindsay, California, n.d.). Additionally, the community has been home to over a dozen recognized street gangs (abc30.com/news, 2011; Johnson, 2014; tulare.ca, 2007).

Lindsay's large community of non-English speaking migrant workers, and high poverty rates among the Latino/a residents, contributed to the obstacles which historically faced Lindsay students; according to Director of School and Community Development Barry Sommers, traditionally many youth expected to "grow up and work in the groves" However, this community has been proactive in combatting social issues for over 20 years. Deemed a small town with an outstanding record of community problem-solving and innovation, in 1995 Lindsay was the only city in the United States to be unanimously chosen by the National Civic League as an All-American City (thelindsaychamber, 2012). This spirit of innovation proved critical when, in 2007, educators from the Lindsay Unified School District approached the community, asking for help in addressing the underachievement of Lindsay students.

District

The Lindsay Unified School District serves over 4,200 students, including approximately 800 homeless youth, and over 1,500 children of migrant workers (greatschools, 2010; lindsay.k12, 2014). Although statistics vary, approximately 95 percent of district Pre K-12 students are Latino/a, over 60 percent of students live below the poverty line, and over 60 percent of students are identified as non-proficient English language speakers (Lindsay.k12.ca.us; United States Census, 2010). Serving the educational needs of these students, the district has six K-8 elementary schools, two of which are dual language immersion, one high school, one continuation school, and one charter school (Lindsay.k12.ca.us.org).

According to Director Sommers, in 2009, fewer than 30 percent of Lindsay students were grade-level proficient in math and reading and those who did graduate and advance to pursue a college education regularly required. Designated a failing school, according to the guidelines set forth in the No Child Left Behind Act of 2001, administrators of Lindsay Unified School District (LUSD) undertook a monumental task to retool their district to meet the needs of their unique learning community (lindsay.k12.ca.us.org; marzanoresearch.com, n.d; reinventingschools.com, 2011). Key stakeholders including parents, students, staff, community leaders, and business members met with district personnel to identify key issues that were considered barriers to student success. According to Director Sommers, their guiding questions were:

- What should a graduate of Lindsay High School look like?
- What should they know?
- What should they be able to do to succeed in college or career after they leave high school?

The long, and often arduous, process of reinventing teaching and learning for the LUSD led to an education transformation – the implementation of a competency-based education model. A District Strategic Design was adopted in 2007 by the Board of Education wherein LUSD put forward a concise and innovative vision for their learners. "Empowering and Motivating for Today and Tomorrow" is the Mission Statement adopted in 2007 as LUSD reimagined their educational model to best meet the needs of all of their youth (district.lindsay.k12, 2016).

With the moral purpose that all learners can learn and a positive, effective learning environment should be provided for all youth, LUSD administration, district personnel, students, and all other stakeholders, developed three guiding principles - Learners and Learning, Learning Facilitators and Teaching, and Learning Communities (district.lindsay.k12, 2016). Guiding Visions were established for the categories of Learning, Curriculum, Instruction, Assessment, Technology, Personnel, Leadership, and Stakeholders. Finally, Life-Long Learning Standards were developed for students that "have the capacity to drive all school curricula and to impact instruction" (district.lindsay.k12, 2016, n.p.). To date, this transition has occurred in all Pre K-12 schools in the district although, according to Director Sommers, each is unique in implementation of the model.

As a public school system, the district is held to mandatory inclusion of all youth, must demonstrate consistency of tracking and accountability, and must meet State and Federal guidelines to educate students in a fair and effective manner (Cole, 2016). Although a significant departure from traditional public education practice under the Carnegie model, Lindsay's CBE system is fully aligned with state education policy and the district has not received waivers that would allow it to bypass laws or requirements (Johnson, 2014).

The district's innovation has not gone unrecognized. In 2012, LUSD was granted a $10 million, four-year grant from Race To The Top (Griswold, 2012) and, according to a January 2016 press release, LUSD has also received a Gates Foundation $499,860 planning grant, in collaboration with two other schools, to identify key deliverables and a

develop a strategic plan for continuous improvement and scaling of personalized education in California public schools (district.lindsay.k12, 2016)

High School

As a part of the Lindsay Unified School District, Lindsay High School has been a part of a paradigm shift in which the district transitioned away from the traditional time-based model of education. Aided by funding from a 3-year Race to the Top grant, a new high school was constructed and opened its doors to learners in late 2010. The new school is located on the outer edges of the Lindsay community with mountains framing the background and groves of oranges and olives abundant in every direction.

In 2015, Lindsay Senior High School reported an enrollment of 1,050 in grades 9-12. The school currently boasts a graduation rate of 87 percent, which is six percent higher than the state average (greatschools, 2010). According to a district administrator, 22 percent of Lindsay high school graduates matriculated to a 4-year college in 2010. That number rose to 32 percent in 2013 and rose again to 44 percent in 2015. Students are currently entering the California university system at a higher rate than the state average, 47 percent versus 42 percent (greatschools, 2010).

Procedures for Data Collection

Initial contact with the Superintendent of the Lindsay Unified School District was made via e-mail. Following communications with the Superintendent, high school principal, the Director of School and Community Development, and the high school Director of Culture, the researcher was granted access to student participants for the

study. An introductory packet was sent to the designated high school administrator and to the Director of School and Community Development. Included for review were 1) a letter of introduction; 2) an overview of the study, 3) Montana State University's Institutional Review Board (IRB) approved interview questions [Appendix A]; 4) letters of reference, and 5) requisite forms including a copy of IRB application approval and parent/guardian consent and participant assent forms [Appendix B]. A site visit was scheduled for the third week of November 2015. Interview protocol for youth and adult participants may be found in Appendix C. Datum was collected from 1) researcher-generated field notes, 2) artifacts, and 3) audio recordings of interviews with youth and adult participants.

Participants

Youth

A key strength of this research is the role of students as co-constructors of knowledge. Yin (2014) stated, "One of the most important sources of case study evidence is the interview" (p. 110). Seldom are students asked to be experts guiding adults in academic decision making despite numerous educational experts having indicated that youth perspectives are a necessity for lasting school reform (Beattie, 2012; Busher, 2012; Fox, et al., 2013; Department of Education, 2009; DeLorenzo, et al., 2009; Mitra, et al., 2009; Re-Inventing Schools, 2011). The criterion for selection of participants was limited to students with two plus years in a CBE public school who are currently enrolled in Lindsay High School. These students have the benefit of reflecting on past experiences as well as connecting to experiences from the current academic year.

Selection of youth participants (YP) was conducted by Abbie Forbus, Director of Culture for Lindsay High School, prior to the researcher's site visit. Parent/guardian consent forms with participant assent for study participation were distributed to 21 students selected by Forbus. Participants were identified from the top 2/3 of the junior/senior class. The administrator was clear that her selection from the top 2/3rds was not to influence the data but in respect for students who might not be able to articulate their learning effectively due to language barriers. Of the 21 consent forms distributed to parents/guardians, 11 were returned and, ultimately, ten youth participated in the interview process (two youth were unable to obtain release from classes). Youth participant demographics are presented in Table 2.

Table 2. Youth Participant Demographics

Youth Participant	Gender	Status	Aspirations
YP1	Female	Senior	Unknown
YP2	Female	Senior	Economics
YP3	Male	Senior	Pharmacist
YP4	Female	Junior	Engineering
YP5	Male	Junior	Athletic Director
YP6	Male	Senior	Undecided
YP7	Female	Senior	Pediatric Oncologist
YP8	Male	Senior	Undecided/Perhaps Military
YP9	Female	Junior	Mental Health Nurse
YP10	Male	Junior	May Want to Teach

A focus group (FGP) consisting of six students (four female, two male) was conducted on Monday, November 16, 2015 lasting approximately 58 minutes. FGP interview questions may be found in Appendix C. Following the initial meeting, 30 minute, semi-structured interviews were scheduled with individual students and

subsequently conducted privately in settings chosen by the participating school, providing a safe, authentic environment as recommended by Guion (2002). Semi-structured interviews were conducted with youth participants using the questions provided in Appendix C. Youth participants in this study were informed of the importance of their perspectives in both guiding implementation of CBE programs and strengthening those already established and were also advised that their responses were completely confidential.

Interviews were conducted following established protocol (Appendix C) and occurred in several locations. The researcher was advised prior to the study that interviews should not interfere with learner instruction time. That request was respected and the researcher adapted preconceived expectations each day to accommodate the reality of interviewing students during academic hours. The first interview was conducted with a focus group. Twenty-one students had been invited to participate in the study (this number representing the researcher's perceived data saturation) with an introductory meeting set for Monday, November 16, 2015. However, only four students arrived at the pre-determined time and two other students joined approximately 30 minutes into the interview. This initial interview took place in the teacher's lounge due to a lack of available space affording more privacy. From the beginning, the researcher was struck by the comfort level of youth participants both with the setting of the interview and in talking with someone who could be considered a complete stranger. After the focus group interview, and during the course of the five-day site visit, individual interviews were conducted with youth participants in smaller, private

conference rooms. The researcher was granted access to small conference rooms (varied depending upon availability).

Adults

Historical context as well as current data were considered imperative to understand the processes by which this district transformed their learning environment and improved educational outcomes for their students. In order to establish a holistic picture of components of CBE contributing to student success and components of CBE needing improvement to support student success in this CBE public high school, semi-structured interviews were conducted with Sommers and Forbus. The two administrators (AP) participating in this study provided background information for the study and data supporting increased student outcomes since the implementation of CBE.

Interview protocol (Appendix C) guided a 48-minute interview with Sommers which was conducted at his office in the district's administrative building. Interview protocol (Appendix C) guided a 30-minute interview with Forbus which was conducted at her office located on the high school campus.

As with youth participants, interviews were captured on recording devices and field notes were taken. Time with each adult participant was limited to his or her availability. Sommers and Forbus were generous with their time and accessibility as well as with their perspectives of school culture, students as learners, and historical context framing the successes realized with the implementation of competency-based education at the site studied.

Data Analysis

Responses to Interview Questions were transcribed verbatim from audio recordings as soon as possible after each interview. Transcribed interviews were entered into HyperResearch (QDA software) and a Table of Specifications was established for each which allowed the researcher to cross-reference during preliminary coding. Table 3 provides a slice of one Table of Specifications.

Table 3. Table of Specifications

	Complete Responses to the following questions:
RQ1 Which aspects of CBE do students identify as contributing to their academic success?	*II Q1* How many years have you participated in CBE?
	II Q2 How did you come to this learning model?
	II Q3 What does success mean to you?
RQ2 Why have these identified aspects of CBE contributed to students' perceived academic success?	*II Q4* How have you been successful with CBE?
RQ3 Which aspects of CBE could be improved in order to increase students' perceived academic success?	*II Q5* What have been your challenges with CBE?

Yin (2014) emphasizes the need for multiple sources of evidence in case study in order to triangulate evidence for the same set of research questions. He states:

> The most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry…Thus any case study finding or conclusion is likely to be more convincing and accurate if it is based on several different sources of information, following a similar convergence" (p. 120).

Maxwell (2005) and Stake (2005) also recommend triangulation to support findings; therefore, researcher-generated field notes and relevant artifacts provided by youth and adult participants were used to triangulate and refine findings. Field notes include, but are not limited to, descriptions of the setting, the participant, the conduct of the participants (i.e. level of enthusiasm or reluctance), and the observations of school climate and culture noticed by the researcher. Artifacts were provided by youth and adult participants alike and include, but are not limited to, historical data, examples of student-generated work, matrices and measurement topics, and introduction to parking lots.

To answer each research question, multiple readings of each participant's complete response to relevant interview questions were conducted to facilitate the identification of key points, commonalities, and unique or divergent statements (Guion, 2002; Maxwell, 2005; Yin, 2014). Margin notes guided the development of preliminary codes. A large group of preliminary codes were established from which two categories emerged 1) School-Level and 2) Student-Level. Components specific to the categories were then identified. The following table illustrates the process of analysis:

Table 4. Component Identification Process.

Codes	**Categories**	**Components**
Collegiality History Transparency Pacing Learning Targets Matrices Clarity Expectations Culture Shift Technology Structures Peers Learning facilitators	School-Level	**Tangible:** Measurement Topics Matrices Learning Targets End of Topic Parking Lots Technology Financial Incentives **Intangible**: Peers Learning Facilitators
Motivation Pacing Drive Goals Stress Empathy Challenges Drive Stigma Deadlines Pride Gangs Family Peers Technology	Student-Level	**Goals** **Ownership of Learning**

Two distinct categories answering the research questions emerged from data analysis, both with multiple sub-categories, which enabled an in-depth examination of

and support for each of the categories. The coded data supported the two themes of 1) School-Level and 2) Student-Level. Quotes, Researcher-generated field notes, and relevant artifacts were organized and coded and include: P (pacing), SS (support systems), ST (structures), and CS (culture shift); these were organized under the working code SSLS (Structures Supporting Learner Success). For example, during the focus group meeting, YP1 discussed her understandings of competency-based education:

> I like how the performance-based is more of, like, um, well, it's based on performance instead of time. So instead of saying that you have so much time to do it in, so you have, like, a year to get the class done . . . you could say, 'You have this much work. How fast can you get it done?' So I like that for the, like, ahead of pace students and the behind pace students cause it works for both so if you're behind pace you're not just going through a class."

This segment would have been coded P/ST/CS under School-Level.

Under Student-Level can be found codes such as G (goals), T (transparency), P (pacing), and SS (support systems), and stress (S). During the focus group meeting, a male participant stated, "Everyone thinks it is easier but it's sorta not. Because, like, what if you finish your work for a class and you want to go to a teacher but they are not there." This statement would have been coded G/P/SS/S.

Researcher's Position Relative to the Participants

As a researcher of student perspectives in competency-based education, I been influenced by multiple factors. Over the span of 18 years, I have had in-depth interactions with students in both traditional public schools and an alternative public high school. My career in education began as a school secretary where I found myself increasingly attracted to a population of students considered "at-risk" of failure, and thus

developed a passion for learners and for the learning process. This led to a career path in which I pursued a college education to, first, become a classroom teacher in an alternative public high school program, and, ultimately, to become a researcher with a focus on school reform efforts.

During my post-graduate studies, I was introduced to competency-based education when a local public high school, following the District's Long Range Strategic Plan, transitioned their alternative program away from the traditional teacher-led delivery of curriculum and assessment to a student-centered paradigm they called performance-based education (Sullivan, 2012). During this time, I attended two years of staff meetings and also made multiple site visits to observe two unique public school districts attempting to undergo the same transformation, albeit in a manner reflecting their individual communities. I, additionally, also had the incredible opportunity of spending five days observing Richard DeLorenzo (co-founder of the Re-Inventing Schools Coalition) as he conducted a 2011 LUSD site visit which included each of the Pre K through 12 schools and the continuation school. I chose intrinsic case study research design as I am deeply vested in CBE as a viable alternative to the traditional model of education and Lindsay High School is demonstrating marked success since full implementation.

While my exposure to the RISC model and my two prior visits to LUSD provided a foundation for my study, there was minimal to no contact with students or current administrators before the study was conducted as recommended by Lichtman (2010) and Yin (2014). According to Yin (2014), as this researcher could be considered a novice,

there may be an advantage to being less familiar with the construct of LHS since full implementation, and therefore may not be influenced by preconceived results from the data. Indeed, several findings from this study surprised the researcher such as the culture shift experienced on the school campus, the sophistication of language used by youth participants as they spoke of learning goals and transparency of systems, and the insights learners provided regarding the continuum of learning.

Trustworthiness

Trustworthiness is described by Lincoln and Guba (1985) as "internal and external validity, reliability, and objectivity" (p. 42). Their four criteria for trustworthiness consist of credibility, transferability, dependability, and confirmability. Each of the four criteria were addressed in this intrinsic case study and colleague review, as recommended by Lincoln and Guba (1985) was employed. Further description of the criteria are found below.

Credibility and confirmability were addressed through the use of recognized research methods, development of a familiarity with the Lindsay community and school district, and triangulation of data (also recommended by Creswell, 2007; Maxwell, 2005; Yin, 2014). Experts agree triangulation can provide a more complete and accurate picture than individual interviews alone (Lincoln and Guba, 1985; Maxwell, 2005; Yin, 2014). Yin (2014) emphasizes the need for multiple sources of evidence in case study in order to triangulate evidence for the same set of research questions. He states:

> The most important advantage presented by using multiple sources of evidence is the development of converging lines of inquiry…Thus any case study finding or conclusion is likely to be more convincing and

> accurate if it is based on several different sources of information, following a similar convergence" (p. 120).

This study sought to to investigate youth perspectives of components that contribute to student success and to identify components that could be improved to support student success in a CBE public high school. Triangulation for this case was established through interviews with youth and adult participants, researcher-generated field notes, and relevant artifacts provided by youth and adult participants and LUSD web sites. To best answer the research questions, interviews were conducted with four juniors and 6 seniors at Lindsay High School, each of whom have participated in CBE for a minimum of two years. Interviews with two administrators were conducted to provide historical context and to augment student perspectives.

Researcher-generated field notes provided descriptions of settings and researcher perspectives of behaviors of interviewees, i.e., "she laughed," "she hit the table repeatedly and said." "he appeared nervous and confused – struggled to find words, and "students were gathered in groups and even though there were 11,000 of them outside at the same time, everyone appeared cordial." Field notes also noted when specific unexpected patterns emerged during YP interviews such as empathy for peers and a lack of negative stigma for learners who are behind pace in their learning.

YP-provided artifacts including parking lots, matrices, Measurement Topics, Learning Targets, student learning binders, and YP-provided examples of their work served to support perspectives that LHS's CBE model is transparent, easily navigable, and designed to offer support for learner success. Artifacts provided by APs and obtained from LUSD websites validate the success of this model in their reports on

significant increases in graduation and matriculation as well as substantial declines in student behavioral issues (lindsay.k12.ca.us/departments/BOE).

The researcher provided an introduction to the study, offered the researcher's positionality, and subsequently conducted debriefing sessions with administration at the conclusion of the site visit. Case study protocol was established and adhered to and a case study database was developed which included all taped, written, analyzed information and all hard documents.

Transferability was established through the inclusion of background data of the community, school district, and high school to establish the context of the study, allowing comparisons to be made in future studies (Lincoln and Guba, 1985). Dependability was addressed in the description of methodology in the event the study is to be repeated (Lincoln and Guba, 1985). Additional confirmability was established through triangulation to reduce researcher bias, acknowledgement of the limitations of the study, maintenance of an established chain of evidence, thick and rich description of settings and participants (Creswell, 2007; Lincoln and Guba, 1985; Maxwell, 2005) and pattern matching and rival explanations (Yin, 2014).

CHAPTER 4

RESULTS

Introduction

The purpose of this study is to explore the perspectives of youth enrolled in a public competency-based high school. These perspectives help mitigate implementation challenges in emerging programs as well as advise the continuous improvement process in the high school studied. Participants from Lindsay Unified School District, Lindsay, California, included ten learners (YP) and two administrators (AP). Additional data was gathered through researcher-generated field notes, and relevant artifacts. The following research questions were formed to guide the investigation:

- Q1: What components of the school's competency-based learning model contribute to student success?
- Q2: How have these identified components contributed to student success?
- Q3: What components of the school's competency-based learning model could be improved in order to increase student success?
- Q4: How would improving these identified components contribute to an increase in student success?

This study was conducted in a Tier II school (high level of poverty and historically academically under-achieving), which has documented a number of improvements since implementation of their competency-based education model (California Department of Education, 2015). School dropout rates decreased from 20.9

during the 2010/11 academic year to 7.8 percent in the 2012/13 academic year, lower than the state average of 11.4 percent. Graduation rates increased from 76.09 percent in 2011 to 90.67 percent in 2013, exceeding the state average by 10.23 percent (School Accountability, 2014-15). While there are still strides to be made in proficiency levels for English-Language Arts, mathematics, and history-social science (still below state averages), state standardized assessment reveal sharp increases in test scores (California Department of Education, 2015).

During semi-structured interviews youth participants provided insights into their experiences with CBE - the foundation of this research. Semi-structured interviews with two administrators provided historical context for LHS's paradigm shift as well as insights into the strikingly positive changes which have occurred at LHS since the implementation of CBE. Field notes allowed the researcher to document experiences pertaining to a typical school day at LSU and student-provided artifacts contributed to a deeper understanding of organizational structures of LHS's CBE model.

Interviews were conducted following established protocol (Appendix C) and occurred in several locations. The researcher was advised prior to the study that interviews should not interfere with learner instruction time. That request was respected and the researcher adapted preconceived expectations each day to accommodate the reality of interviewing students during academic hours. The first interview was conducted with a focus group. Twenty-one students had been invited to participate in the study (this number representing the researcher's perceived data saturation) with an introductory meeting set for Monday, November 16, 2015. However, only four students

arrived at the pre-determined time and two other students joined approximately 30 minutes into the interview. This initial interview took place in the teacher's lounge due to a lack of available space affording more privacy. From the beginning, the researcher was struck by the comfort level of youth participants both with the setting of the interview and in talking with someone who could be considered a complete stranger. After the focus group interview, and during the course of the five-day site visit, individual interviews were conducted with youth participants in smaller, private conference rooms. The researcher was granted access to small conference rooms (varied depending upon availability).

Components of Competency-Based Education Supporting Student Success

Responses from youth participants (YP), and adult participants (AP) provided rich data addressing the four Research Questions. Data analysis revealed two distinct categories that contribute to success for Lindsay's learners: 1) School-Level and 2) Student-Level. Each category has distinct components that support student success.

1 - School-Level

Data analysis of interviews, artifacts, and researcher-generated field notes indicate two intrinsically intertwined school-level components that contribute to learner success at LHS: Tangible Learning Supports and Intangible Learning Supports.

Tangible School-Level Supports. Seven tangible learning supports were identified as integral to student success in LHS's CBE model. Youth participants talked specifically about six of those supports: measurement topics (MT), learning targets (LT), end of topic assessments (EOT), matrices, parking lots, and technology. Director Sommers and Dean Forbus talked about the same supports as YPs, but also included a seventh support for learner success – post-graduation funding for continuing education. Below are basic descriptors of each identified support. Although difficult to separate from each other in order of importance to student learning, descriptions of tangible learning supports are presented in a manner to denote relevance to each other.

Measurement Topic (MT). Measurement topics are standards-based units of study that serve as guides toward mastery. Several YP were explicit in discussing measurement topics; YP1 offered, "So every topic has its own criteria that we have to hit, and different assignments [learning targets], and so when we are finished with all of those assignments, we complete one MT." An MT is passed only when student knows and understands every criterion set for level 3 which, according to YP3, would be the equivalent of a B in a traditional education setting.

The Measurement Topic in Table 5 was derived from an artifact obtained at Lindsay High School. Measurement Topics vary according to content area but Table 5 provides a very basic overview of a potential Measurement Topic:

Table 5. Measurement Topics.

FIRST SEMESTER					
Algebra 1	**Geometry**	**Algebra 2**	**Trig/Math Analysis**	**Consumer Math**	**AP Calculus**
Solving Linear Equations & Inequalities	Basic Terms & Constructions, Inductive & Deductive, Reasoning	Solving Absolute Value Equations and Inequalities & Systems of Equations	Function Basics & Numerical Math Modeling	Budgets & Expenses	Limits & Continuity
Graphing Linear Equations & Inequalities	Coordinate Geometry, Linear Equations, & Transformations	Simplifying Polynomial Expressions	Creating New Functions From Old	Income and Paychecks	The Derivative
Solving Systems of Equations & Inequalities	Parallel Lines and Parallelograms	Solving & Graphing Quadratic Equations	Polynomial, Power, and Rational Functions	Banking	Applications of the Derivative
	Triangle Congruence & Similarity & Inequality		Exponential, Logistic, & Logarithmic Functions	Loans & Credit	
SECOND SEMESTER					
Algebra 1	**Perimeter, Surface Area, & Volume**	**Graphing Quadratic Functions & Relations**	**Trigonometric Bases**	**Housing**	**Approximating Integrals & Riemann Sums**
Working with Monomials & Polynomials	Trigonometry & Special Triangles	Rational Expressions	Graphing Trigonometric Functions	Buying Groceries & Personal Items	Evaluating Integrals
Solving Quadratic Equations	Circles	Logarithms & Exponents	Trigonometric Identities	Owning & Maintaining a Vehicle	Applications of Integration
Quadratic Functions	Proofs	Counting Principle & Binomial Theorem	Limits	Recreation, Travel, & Entertainment	Average Values, Slope Fields, & Separable Differential Equations

Field notes indicate learners use MTs to guide their learning, facilitate organization of learning targets, and meet their personal goals.

Learning Target (LT). Students access tracking charts with explicit standards-based assignments organized into simple and complex knowledge (lindsay.K12.ca.us). The following guidelines, provided by LUSD, provide the framework for learning targets:

- Learners know what they are supposed to be learning;
- Learners know how they are going to show their learning;
- Tracking should provide learner with ownership of learning and thus increase motivation;
- Tracking should provide some level of feedback to the learner that is self-evaluative.

The artifact in Table 6 is a simple LT for Spanish I. Field notes indicate the LT is a learning support YPs rely on to guide their learning, particularly when working with peers. YP2 explained, "So I have a checklist, like 'Oh, if I did this than I am going to go to the next thing. And if I need help, I ask a friend."

Table 6. Learning Target.

Standard Description
communicate effectively with some hesitation and errors which do not hinder conversation

Choose any two tasks in any direction. All tasks *must* be completed in Spanish. A "*" symbol indicates that a task *must* be typed. Please *do not* use an online translator.

[1] **Entrevista con un adulto** Interview an adult using a recording device. Be sure that you use correct grammar. You can ask your *interviewee* any questions that are appropriate. You must record the interview. It must be at least two minutes long. Please send to your *profesor*.	[2] **¿Cuál es tu deporte favorito?** What is your favorite sport? Record yourself using your iPhone, iPod or other recording device discussing your *favorite sport*. Your recording must be at least one minute long. Please send to your *profesor*.
[3] **Un libro** Select a book from Señor's library. Record yourself *reading* for at least two minutes. Be sure to use correct pronunciation.	[4] **¿Qué te gusta hacer en tu tiempo libre?** What do you like to do in your free time? ¿Te gusta *dormir*? ¿Te gusta ir a la playa? Discuss your *hobbies* in a *recording* of at least two minutes.

End of Topic (EOT). This assessment tool is used to measure student progress toward mastery of content. Learners receive academic credit after demonstrating proficiency on a given measurement topic by successfully completing an end-of-topic exam. Exam results combined with additional evidence of learning provide the basis for final grading. YP10 described it in this manner, "An EOT is kinda like a test. Like a practice test. We do it online. We can retake it if we know the knowledge better; to get a higher grade." YP7 noted, "And you take an overall test - end of topic test - EOT, another acronym, and you will take the EOT to show that you really know the stuff or that maybe you just completed it to complete the work. And then you get to move on." Table 7 is derived from an artifact obtained from the Lindsay High School website and illustrates an End of Topic exam for an art class. The EOT included detailed examples of work considered mastery level.

Table 7. EOT – Portraiture – Self Portrait.

Materials: 8x10" Drawing Paper, Ink Pen, Pencil, and mirror.
Step 1: Set up your mirror so that you can look at yourself without having to hold it.
Step 2: On your 8x 10" sheet of paper sketch with pencil the basic oval used to draw your portrait. Include measurement lines.
Step 3: Begin altering the basic oval in pencil (Lightly) to reflect the features you see on your face. Be sure to apply surface changes to include 3-dimensional features like cheeks and eye ridges.
Step 4: Begin the inking process. Be careful not to add to little or too much ink. Relate the tonal changes to your value scale as discussed in class.
See videos and picture examples below for extra help.
Video: General Lee in Ink
Video: Hawk Eye- Last of the Mohicans
Video: Positive/Negative Space Drawing of Audrey Hepburn
Video: Ernest Hemmingway
Video: Continuous Contour + Sketch of Self Portrait
Video: Tutorial on Face/Portrait Drawing

Table 7. EOT – Portraiture – Self Portrait, continued.

See videos and picture examples below for extra help, continued.

Video: Ink Portraiture
Video: Ball Point Pen and Ink Drawing

Guiding Questions for Credit: If you can answer yes to all questions, you may turn it in for a signature.

Did I include all previous knowledge from 1st semester in my drawing?
Did I include a neck and some shoulders so that the portrait is not floating?
Did I use a variety of line work, line directions, and values created through line to ink my portrait and show all the skills in ink?
Did I make my portrait at least 8 x 10"?
Is this the best piece of art work I have done all semester?
Are the eyes, ears, nose, mouth, and hair in the appropriate positions based on the basic measuring techniques?
Can other people in the room identify my drawing as me when I am not around?
If you are planning to earn a 4: Is my portrait of better quality than everyone else's in class?
Did I include signifying clues or symbols in my work so that you can tell my interest either on my clothes or in the background?

Field notes indicate learners need to reach a level 3 in proficiency but four YPs said they always try to reach a level 4 (mastery) either to reach their own goal or to bolster their GPA for college entrance. YP3 explained his desire to achieve mastery in all content areas, "Well, first of all it translates into an A+ on transcripts! And it does raise your GPA."

Matrices. A Capacity matrix is a tool used to describe, document, and monitor student learning throughout a measurement topic. It allows youth to clearly track their progress toward mastery and document successful demonstrations of content knowledge. Matrices are used to monitor individual and/or group progress. YP4 was concise in her description:

> Oh! It's the capacity matrix. It's like a syllabus . . . the teachers make it for each one of their classes . . . this list of the work you have to do. And once you finish that work, you turn it in and they'll grade you for all of it. And English and Spanish, Math, Art, and Science. You have a capacity matrix and it tells you what is due when.

Learners in the focus group identified and explained several wall matrices and talked about the importance of matrices to student success. YP1 said, "The matrix has all the tasks you need to do to graduate that topic. It includes teacher-paced due dates. So it kinda helps me stay on pace and more organized." Most participants indicated they use binders to keep their matrices, MTs, EOTs, and demonstrations of proficiency organized and accessible for learners, facilitators, and parents. YPs were generous in sharing their binders and indicated they often show them to visitors from other schools. Field notes indicate that both youth and adult participants identify matrices as a critical tool that supports learner success and system-wide transparency.

Figure 3, an artifact obtained from the Lindsay High School website, is illustrative of Group Capacity Matrices:



Figure 3. Group Capacity Matrices.

Table 8 is partial artifact of an individual Capacity Matrix with the entirety of matrix available in Appendix D:

Table 8. Capacity Matrix.

Name: _____Date Started: _____					
Target Completion Date: 21 de sept. 2012					
National Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied					
Learning Targets:	**1**	**2**	**3**	**4**	
	Emerging	**Partially Proficient**	**Proficient**	**Advanced**	**What is my evidence?** *Separate evidence is required for each criteria*
Measurement Topic #3 **Discussing Family and Expressing Possession**	I can show what I learned with help	I learned the simple parts	I learned the simple and complex parts and can demonstrate them	I can use what I learned in a new way. (e.g. Explain, teach or go beyond)	**1 piece of evidence for Level 2 2 pieces of evidence for Level 3 1 piece of evidence for Level 4**

Teacher Sign off/Date

Parking Lots. This useful tool is a permanent fixture in learning environments, the staff lounge, and administrator offices. Developed by Langford (2010), parking lots allow youth and adults to anonymously *park* concerns and/or suggestions, contributing to all key stakeholder's ownership in the continuous improvement process. FGPs indicated they often use parking lots as a means to improve classroom instruction, to coach new

learning facilitators, or during any organizational change. Figure 4 illustrates the basic function of a parking lot. At any time people may leave feedback (in the form of a note or a post-it) on the parking lot board. Feedback is anonymous and is used to facilitate continuous improvement of the CBE model and also used when ideas, questions or comments emerge at times when they cannot be explored as it allows feedback to be collected and acted upon later. This tool is used by faculty, staff, and students, and administrators. It is also used during community meetings. The parking lot is divided into four sections: positive comments, needs for improvement, general questions or insights for review at a later time, and any *ah ha* moments experienced. Figure 4 illustrates the parking lot and its four sections.

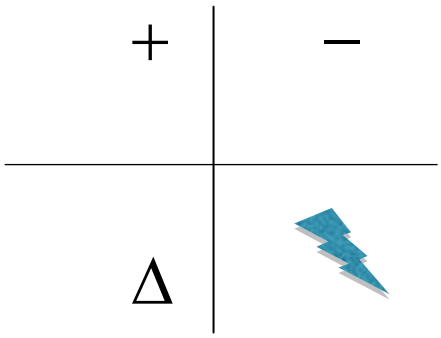


Figure 4. Parking Lot Adapted From Langford International.

Field notes indicate parking lots posted throughout the school. FGPs showed one to the researcher that was posted in the faculty lounge. When asked if they used any learning supports, the six FGPs eagerly talked over each other, “Oh, yea, the parking lot.” “Like a lot.” “We use the parking lot a lot.” “A lot!”

Technology. The perception of technology as a learning support appeared in each YP interview. YP6 discussed the actual hardware including laptops, YP7 and YP9 the software, and YP7 some the applications used for learning. YPs unanimously indicated that technology made it easier to participate in, and track, their learning. YP3 indicated that learning facilitators post MTs online and include webinars, links to relevant information, and end-of topic tests. If a learner is behind pace, or wants to move ahead of pace, lessons and learning supports are easily accessed.

Due to a district initiative, each learner has a laptop or learning device of some sort. YP2, stated "I think it's great we have it. Everybody deserves it." AP9 added, "I can't lose my work. It's always handy!" Parents/guardians also have access to student databases and are able to track the learning progress of their child.

Analysis of field notes indicate classrooms have large screens for projection of videos. YP3 explained, "They connect their computer or their tablets to the TV and they show us videos, education videos. And, um, they give us an explanation."

Out-of-District Financial Incentives. While no YP discussed monetary incentives as a factor for student success, Director Sommers discussed several areas in which donations could be an intrinsic or extrinsic motivator. Aside from the Race to the Top grant monies that helped fund the new high school facility, provide computers for all students, and extend faculty training, several additional donors that include a large local agribusiness and the Gates' Foundation's "Raise Me" program have provided financial incentives specifically earmarked to provide monetary assistance for advancement in college or career. He described a proposed initiative from "a giant farmer" and

explained, “He offered scholarships for private schools to several students as a way to say, ‘Thank you for making me rich.’” Sommers explained further that the farmer (the owner of a large agribusiness) realized that the parents of these students and labor in his fields, have contributed to his success, and his desire to pay it forward was profound. This initial proposal led to the establishment of an educational fund for every student that graduates from LHS to further their education and training.

Each student in the LUSD has a district-monitored bank account where deposits are made based on academic achievement and contributions to school and community. Upon graduation, learners have access to these funds to further their education and training. As noted in the researcher’s field notes, it was surprising that access to these funds did not emerge as an extrinsic motivator (from the perspectives of the learners). While this was an interesting finding, the researcher was unable to triangulate it with artifacts.

Intangible School-Level Supports. It is difficult to separate any one factor in the fluid yet delineated CBE model contributing to student success from another in the learning process, however, six components emerged from data analysis. Tangible learning supports have been discussed and although learning facilitators and peers are tangible, their interactions are not. Interactions with Learning Facilitators and Peers are two additional components identified as contributing to student success LHS. Pacing, System-Wide Transparency (guided by specific education tools), a Culture Shift, and Lindsay High School’s Continuous Improvement Model have been identified as contributing to learner success.

Pacing. No longer organized in the age cohorts determined by the Carnegie classification, self-pacing allows a learner to advance through Lindsay's standards-based units of curriculum known as Measurement Topics (MT) based on competencies rather than time spent in class (lindsay.k12.ca, 2016). Performing at their own developmental level, youth self-monitor and progress through explicit assignments known as Learning Targets (LT). Ultimately, as they successfully complete End-of-Topic (EOT) assessments, they advance to the next MT (lindsay.k12.ca). YP5 explained, "So, basically, you can move at your own pace, so if your teacher, if the teacher's pace is too slow, you can move on ahead, or if it's too fast, you can kinda stay behind. You know, do the curriculum at your own pace."

The ability to self-pace was identified by YPs and APs as the most significant contributor to student success at LHS. YP3 observed, "Well, you're in traditional, you get an F and you're, like, done. That's your grade. But here you get chances to fix it . . . You can make it up and you can get back on pace and you can feel like, 'Oh, look, I did that!'" YP1 spoke of success she experienced with self-pacing in an Advanced Placement class, "I finished the whole semester in like two months. It took the class the whole semester. I was like one of the few that actually finished the class and I enjoyed it because I was working at my own pace." YP5 stated, "It's kinda like a chain reaction of just constantly working ahead or just to stay on pace. Like a domino."

Throughout each transcribed interview from YPs, there was an evident lack of stigma attached to individual's pacing. YP9 stated it well when she said:

> If we are doing a group activity, and we have a struggling student in our group, we kinda slow down the whole groups' pace to help them

> understand what we are doing. But not too slow that you get bored with it and then just wanna leave it behind. So we find a pace that adjusts for the whole group, that works for all the group, and we support I guess people say it's moving at your own pace, but it's not like that, like it's more one-on-one. Like you can ask more questions without feeling embarrassed.

The ability to self-pace through the curriculum is intrinsically intertwined with the support systems and learning tools available to learners at Lindsay High School.

Interactions with Learning Facilitators. Whether the term teacher or learning facilitator was employed, FGPs and YPs indicated the interaction between educator and student was significant for learner success. Every learner interviewed spoke to the impact made by adults. YP3 said, "Teachers have worked so hard to be resourceful to help *every* student." Interestingly, YPs expressed a desire to have more interaction with learning facilitators. The following statement made by YP6 is illustrative of this perspective:

> . . . because there's just something about receiving information from a machine. When a teacher grades you, it's much more personal and they can guide you more. It's just like you get so much more information from a teacher. They explain themselves more 'cause they have to physically hand you, hand you, the paper back and, like, explain themselves more and you're like, 'Oh, I see! I see that.'

YP5 echoes, "Teacher support is critical!" However, it was pointed out by YP1 that learning facilitator support is scaffolded, "Freshman year you're all about building a class and getting that class cohesive. And by senior year, they're like, 'Hey, I know how to do this. Can you just help a little?'" Field notes indicated an observation by the researcher that three of the ten YPs expressed frustration that learning facilitators were often not available when the learner needed them.

Interactions with Peers. In the 40/40/20 model of CBE, peer interactions should consist of 40 percent of a learner's time spent on a measurement topic (DeLorenzo, personal communication, 2011). As noted earlier, at LHS the percentages vary considerably depending upon the learner, the learning facilitator, and the learning targets. YPs indicated an average 50 percent of their time was spent with learning facilitators, 40 percent with peers, and 70 percent learning independently. Those figures far exceed 100 percent as it was indicated freshman and sophomores spend considerably more time with direct instruction and peers and each class is individualized depending upon content and level. Regardless, the following quotes demonstrate the ease in which learners work together: YP6 said, "You ask them [peers] for help a lot, especially if you're behind pace" and YP10 offered, "That's one thing, you ask your peers for help a lot." YP9 talked about the struggle to understand a learning target and very comfortably stated, "And if not, just ask your peer right next to you cause they'll be able to, like, usually be the one that knows what's going on."

Field notes indicate the ease with which the FGPs interrelated during the interview. Notations were made concerning the varied sophistication of FGPs which appeared to range from advanced to emergings learners. Regardless, they bounced ideas off of each other, guided each other to be suscinct, and included every participant in the discussion.

System-Wide Transparency. During preliminary investigation of competency-based education models, it was indicated that, at any point in time, a learner could answer the following three key questions: "What are you learning?" "Why are you learning that

material?" "What do you do if you get stuck in your learning process?" During interviews, YPs were asked if they would be able to answer those three key questions at any given time (Interview Questions, Appendix C). YPs overwhelming indicated their transparent learning model provides the framework for this to occur. YP4 stated:

> The system makes you very organized to what you're learning, exactly what you're learning and, um, . . . what you need to learn, where you're at in that learning, and why you're learning it. So it's kinda' straightforward. There's nothing like a hidden thing you need to learn and you didn't learn. You learn everything you need.

YP1 explained:

> So they basically give us an outline and then we learn on our own. Unless we need direct help from the teacher, and if, and then, they work with us one-on-one. But if they realize a lot of students in the class need help with it then they will do direct instruction and help us along. So they are basically are our guidance? Like a guide to our own learning so we take the reins of our own learning and how we want to conduct it and pretty much have free rein over how we do what we want to do, but they pretty much check that we don't fall too much behind, and if want to go faster than the rest of the class, they give us the means to do that as well.

The Tables and Figures in this chapter are illustrative of the tools that guide student learning and support learner success.

Dean Forbus also talked about the power of transparency for students, "That has been our greatest success. Our transparency in knowledge and learning." She added. "When you are talking to kids who are either behind pace or in last class rank or whatnot, they still know where they *are*. Whereas in our old system, they had no clue what they needed to do. And now they do." Director Sommers, also, was enthusiastic about the power of a transparent learning system, "You know, like a student will say, 'I am really, really strong in language arts and I can help my friends, but in math, I am two content

levels behind.' And everyone knows it because it's posted on the walls everywhere. It's so transparent!"

Field notes indicate the transparency of education structures at LHS is evident at the learner level in how YPs were able to articulate their learning and explain the tracking that monitors their trajectory of learning. YPs had clear understandings of measurement topics and the steps that need to be taken to meet learning targets. YP7 noted, "So they'll have a tracking thing that shows where everyone is at. And it's very open about where everybody is at currently on their pace."

Culture Shift. During interviews with YPs, mention was made of a culture shift at LHS which has contributed to student success. AP interviews, behavioral data, and researcher-generated field notes indicate a significant change in behaviors of students and an increase in academically-related student outcomes. During data analysis, the researcher identified two intrinsically intertwined components that contribute to student success at LHS - growth mindset and empathy. The synchronicity between these components has fostered a campus-wide culture shift that provides a supportive learning environment. The following conversation obtained from a transcribed interview with YP2 speaks to the culture shift:

> Lindsay used to be a trouble school. Especially before they, before we had a middle school that was just like Lindsay High? But it was just for grade and it was just bad.
>
> Researcher - So this model has improved your school?
>
> We have changed a lot. It was bad. There was like fights every day. It was like a lot of drugs going on, and stuff. And now that we came here everything has changed a lot.

Director Sommers spoke to the changes: "Gang affiliation was gigantic ten years ago; there were several serial deaths because of gangs . . . I would be really surprised if you talked to learners now who didn't feel safe and connected and bonded with school." Dean Forbus also indicated that prior to the paradigm shift, attendance was spotty, graduation rates were low, and constant discipline referrals prevented administration from addressing other school and student needs but that the culture shift has been dramatic.

While many issues related to socio-economic status, including gang affiliation, still exist outside of school, they are no longer evident on campus. Forbus commented, "Everyone is at least cordial to one another. With 1,100 students sharing a common lunch period, that is remarkable." She added, "Now you look out and we cannot pick out the gang members. You know, they are respectful enough of the campus and they don't feel like they fight to get out of school anymore. They feel supported enough so they don't bring it here." Researcher field notes support this insight when describing an experience during the common lunch hour where 1,100 students gathered around the campus. A number of youth were participating in a holiday activity (a turkey bowl which gave students the opportunity to win a turkey), some gathered to watch and/or cheer on their favorite participant, while others hung around in groups far away from the activity. Each group seemed to be content where they were and there was none of the hustle, bustle, or *one-upping* the researcher expected to see on this or any other high school campus.

Growth Mindset. During interviews with both Sommers and Forbus, each attributed the increase in learner success to the adoption of a growth mindset approach. Based on the work of Dweck (2007), the theory applied is that self-concept is malleable and that all LHS students will see themselves as successful life-long learners. During a discussion with Sommers, he specified:

> Growth-mindset has been *huge* in shifting the culture. I had one learner say, 'I was four years behind, but I made up two years last year and by the end of this year, I'll be on pace.' Where do you go and hear somebody, you know, hear a student say that? Cause they know where they are and they know what they have to do to deliver proficiency and mastery and move on. That's really inspiring.

Empathy. A pattern of empathetic responses emerged unexpectedly during data analysis. Understandings of scholastic and personal challenges experienced by peers were expressed in each interview. The following suggestion made by YP1 illustrates the compassion YPs displayed for each other, "I feel like you should ask the students that are behind pace. So you can see how *they* feel? How they struggle. Not just with the student part, but with being on track. And see how they view it? From their point of view." YP3 spoke about the supportive culture and lack of stigma surrounding the learning continuum, "And it's not like, 'Oh, you're only on, you're way back there when I'm way up here.' I haven't noticed that at all." Regarding the overall school culture, YP5 noted:

> Like, what I noticed is just that the environment at this school, that there's not just this idea that, 'Oh, I'm not going to graduate anyways, why should I even try?' I haven't noticed that a lot, maybe that's just the environment of our school. Yeah, so I think that's something really cool about this school or this system that makes it like this.

Field notes indicate a researcher-identified pattern of empathy and compassion which was identified by the time the transcripton of interview YP3 was completed. Margin notes indicate the surprise at the unexpected pattern.

Continuous Improvement. Lindsay High School has come a long way since implementation of a competency-based, personalized learning model for their students. They have overcome challenges by focusing on the questions that drove their initial paradigm shift, "What do we want a Lindsay graduate to look like? What should they know? What should they be able to do?" This is where the intersection of youth level and school level components is most evident. The continuous improvement aspect of CBE employed at LHS, derived from the RISC model, is not a top down process of system improvement but one that honors all stakeholders in decision-making processes that affect learner success.

Working within the continuous improvement process, district personnel work with learners to identify areas in which students have challenges. While YPs in this study gave favorable reports of their experiences in the CBE learning model, they did identify three areas in which program modifications could increase student success, 1) Scheduling, 2) Technology, and, 3) Advisory Period. The first two areas identified as needing improvement are currently undergoing revision. The third area of concern, Advisory Class, was not discussed by AP as perhaps they were unaware that a concern existed.

Area Needing Improvement 1 – Scheduling. As previously discussed, YP indicated the block schedule was not effective for all learners. In response, and working with stakeholders, implementation of MOD Scheduling is set to begin in early 2016.

Area Needing Improvement 2 – Technology. A new, more comprehensive learning platform (as requested by learners and faculty), is set to rollout in January 2016 (B. Sommers, personal interview, November 15, 2015).

Area Needing Improvement 3 – Advisory Class. The third area of concern, identified by two YPs but not known to administration at the time of this study, is the perceived ineffective use of the Advisory Period:

> I would say advisory, like, it's like a good thing but, really it's a waste of time. It seems like a good thing, cause you get talked to. Like your teacher, you know, the teacher that's taking care of you. A lot more. And I might say we, necessarily, do nothing, you know.

YP 9 her objections to the current structure of the advisory class but also offered solutions:

> Yeah. Like I don't do anything in my advisory. It's like being in a whole campus out of class and the teacher is, like, 'Why are you off pace?' And you have to use the time to do it but if you are on pace, you don't really do anything. You just sit there. Like for half an hour. So it's not that great. I would go through and ask every teacher what students they want in their advisory class and so that they could say (pounding the desk), 'I want this student, this student, this student, because I think they need extra help or whatever it is.' And then the students that are like, on pace, put them with teachers that will help them do something that's next. Like, maybe, put all of the seniors with the English teacher so they can get through their senior project. Just a little something extra. Cause, like, 30 minutes, you could look at your life map, or this, or this. You know. It would just make more sense.

In the continuous improvement process, if adjusting the structure of Advisory Period would increase student success, learners, faculty, and administration would work together to find a resolution.

Administration, aware that learners were having difficulty with the schedule, have worked to develop a schedule that allows more flexibility and better access to learning facilitators. Forbus explained the Mod Schedule gives learning facilitators flex-time to schedule appointments with learners as needed. The new Mod Schedule also functions similarly to a college or university schedule.

As indicated, nothing at LHS is done in isolation. Learners were part of the development process and were aware that changes were coming:

> But have you heard of the flex schedule we're trying to get in? So, I think that will be a huge help once we move into that. Just because it will help with time management with all of our classes.

2- Student-Level

Two student-level components identified by YPs emerged as contributing to learner success at Lindsay High School. The first component is Goal-Setting Behaviors and the second is Ownership of Learning. When asked to define success (Interview Question 3, Appendix C), goal-setting emerged as one of the most significant non-tangible contributions to learner success. Bandura (1994) indicates the ability to set goals and evaluate outcomes increases self-efficacy and motivation. YPs talked about three distinct goals that influence their desire to succeed at LHS and beyond. Ownership of learning emerged as a theme throughout YP interviews and has been termed a component contributing to learner success even though those specific words were not used by YPs.

Goals - Self. YP7 stated, "When I think of success, I think of goals and goals that I set for myself. Once I have accomplished those goals for myself, so I can call myself successful, so then I just keep trying to achieve them." YP2 explained that success is, to her, "Accomplishing the set goals, the goals you have set for yourself, and not just doing it to do it but doing it at a level because you are really proud of it and you are willing to share with other people." An authentic example of this level of pride and ownership of learning presented itself to the researcher YP7 was asked, "What does success mean to you," and she immediately pulled out her cell phone and searched for an assignment she had completed the previous school year. She enthusiastically talked about the project she had completed, an 11-page essay about an ecosystem she had created and how any one change in the environment could impact the ecosystem. She said, "Yeah, like it was real critical thinking."

Conversely, a male student, YP 10, struggling to find the right words said:

> I just learn, you know. But my mind is really difficult you know? But like the definition of success to me is only going one path, you know, and finishing it. And once you finish your goal or subject or whatever, it's time to move on to the next thing, you know?

Competency-based education at LHS provides opportunities for each of these diverse learners to develop self-efficacy and find the motivation needed to successfully meet their goal. Field notes indicate the learning tools (i.e. LTs and Matrices) provide the support YPs need to meet their goals.

Goals - Family. A number of YPs set goals for themselves based on their perceived future ability to contribute to the family dynamic. Statements such as the one

made by YP1, "Because I see my parents struggle. In their work. They work in the fields and for me I feel like the best way to give something back to them is me being an educated person" were common. YP3 said:

> My goal is to go to college and help my family out. It's not that they need help – they have everything – it's just, like, to get one of their kids to college is one of their goals because they didn't. So that would help out my family. Like, 'Oh, finally! One of our kids made it to college.'

Goals - Post-Secondary. Plans to attend college or university was a common goal expressed during most interviews. LUSD places an emphasis on preparing youth for life-long learning including college, university, trade, or career. Extending goal-setting to the years beyond high school graduation, three YPs commented on aspirations that are fostered in AVID (Advanced Via Individual Determination). YP6, "Well, our goal with AVID, it's, our goal is not just to graduate, our goal's to graduate college, finish college." District provided information indicates the goal of AVID is to target low to average students, minorities, low-income students, and students whose parents do not have a college education and provide scaffolding that prepares them to succeed in high school and eventually attend college (Hicks, 2004).

The post-graduation goals of the youth in this study were inspiring (Table 2, Chapter 3). While two of the ten YPs were still undecided as to where their post-secondary experiences would take them, and the aspirations of one YP is unknown, field notes indicate they all exuded confidence in their ability to succeed after high school.

During the interview conducted with Sommers, the researcher commented about the depth and breadth of Lindsay student's post-secondary goals. Sommers responded, "I

don't really experience the glass ceiling here, no gender bias. There's no ethnic, no poverty bias."

Ownership of Learning. Field notes indicate that while not explicitly identified as a factor contributing to learner success by YPs, there was a noticeable level of pride and ownership of learning among all YPs. Statements from YP1, "Doing it here, it like, pushes me so I'm not just doing it to, like doing it just for school work, but I'm doing it for my own knowledge" and YP3, "Well, in my experience, I think the system lets you take control over what you need to do. Over you, it gives you the power to do what you want whenever you want" exemplify the tone YPss set during each interview. YP5 was enthusiastic in explaining, "Yeah, like that's, like, what PBL [performance-based learning] is, if I show all my work and early, I finish early, then I can go ahead. And then when everyone's taking their test, I'm like, 'I already know that!'" In relation to moving beyond proficiency to mastery (the highest level of achievement), YP4 expressed complete ownership of her learning:

> It makes you feel like you have, you understood this to a better extent than the others. It's like saying, um, it makes a clear distinction between a person who just barely passes to a person who passed with flying colors. That kinda makes you feel better. 'Yes, I do know this and I know this better than the next person!' That sounds mean but it makes you feel better!

Even the traditional view of homework seems to have shifted for Lindsay learners. YP7 stated, "Cause I work at home a lot too. That's what helps with the performance-based system [CBE] cause you can take your work home and work on it." FGPs offered statements such as, "I work as much as I can and then if I can't, I would do it at home and then bring it back finished the next day" and "Cause sometimes I won't

understand it fully, so I take to my house to make sure I have everything for the next day." This indication of self-efficacy extending beyond the academic day was unique to the researcher.

Youth Perspectives of Components That Could Be Modified to Support Learner Success

This section, while answering Interview Question 6 (Appendix C) also expands the view of the Continuous Improvement component of LHS's competency-based model. Interview Question 6 asks, "If you could influence the continued development of this program, what would you change?" Analysis revealed three distinct components of LHS's competency-based model that, from the perspective of YPs, could be modified to support student success. The three identified components are 1) an increase in School-Level Support, 2) an improved Scheduling of Classes, and 3) adapting Advisory Period to better meet the needs of learners.

School-Level Support

According to YPs, aspects of the organizational construct of LHS that could be improved to further support learner success were Technology, Learning Facilitator Access, and Advisory Period. The effect of the continuous improvement component of LHS's organizational construct will be discussed in each identified

Technology. Most YPs were appreciative of their access to technology; however, data analysis revealed two learners who addressed technology as not always providing the most effective learning support. YP6:

> Like the readings are on the internet but when you are just sitting there doing your anchor reading, talking to your neighbor, it works really well. Instead of just copy and paste, copy and paste, and you're not really reading it. You have to write something and read it and write it to understand it. Instead of copy that, delete that, copy that…

YP8 stated his frustration with teachers' overreliance on, "Google Drive, Google Classroom, Google Doc.x, all the time. It's ridiculous." The only other modification suggested was a request for a more sophisticated technological platform that would provide more comprehensive access to curricula, assessments, pacing tools, etc.

YPs expressed an appreciation for LHS's learning platform. However, exhibiting frustrations, several YPs talked about the perceived limitations of the current system. The primary challenge cited was underdeveloped software. Again, in the vein of continuous improvement, administrators have worked tirelessly to find a developer tasked with creating a learning platform that offers access to the totality of learning at LHS. During conversation with Sommers, he discussed the anticipation of a new learning platform:

> We are about to roll it out. So not only will it have all their data attached to it, and it's the way they'll do all their assessment, and demonstrate proficiency to mastery, but also is the whole ball of curriculum. So they can access it any time.

Learning Facilitators Access. A second school-level support YPs identified as needing modifications is the amount of time learners spend with learning facilitators. The following quote is very illustrative of the participants' desire to have more interaction with learning facilitators. YP3 said:

> . . . because there's just something about receiving information from a machine. When a teacher grades you, it's much more personal and they

> can guide you more. It's just like you get so much more information from a teacher. They explain themselves more 'cause they have to physically hand you, hand you, the paper back and, like, explain themselves more and you're like, 'Oh, I see! I see that.'

Analysis of field notes provided insights into the interdependent relationships between learning facilitators and learners. Each of the ten YPs made reference during interviews to their connections with learning facilitators/teachers.

Scheduling of Classes

YPs spoke about the school block schedule as one impediment to success for learners. At the time of this study, classes were run on a block schedule of seven classes lasting for 90 minutes, each meeting three times a week (Lindsay.k12). While many students work well with this schedule, others struggle. YP9 expressed frustration with the schedule, "The schedule right now, the scheduling we have right now is a big problem because there are set classes that we have and it's hard to give, like, one-on-one one to the teacher, like if you need it, without, like, they have another class at that time." YP2 explained the scheduling problem but also acknowledged that the new schedule (MOD scheduling) may provide a solution:

> So I think our scheduling is a big problem. But, have you heard of the flex schedule we're trying to get in?"
>
> So, I think that will be a huge help once we move into that. Just because it will help with time management with all of our classes. I think the main reason we have a problem with our schedule is because, like, I, last year I finished my math class about two months early.
>
> So that's why the scheduling needs to be where I can make it, I can change my schedule to take a college class where they have that two days a week or something. Know what I mean?

Advisory Period

The third area of concern YP9 and YP10 discussed, Advisory Period, was not addressed by APs as perhaps they were unaware that a concern existed. However, data analysis revealed YPs indicating a desire to have Advisory Period modified to meet the needs of individual learner cohorts. YP10 offered, "I would say advisory, like, it's like a good thing but, really it's a waste of time. It seems like a good thing, cause you get talked to. Like your teacher, you know, the teacher that's taking care of you. A lot more. And I might say we, necessarily, do nothing, you know." YP9 stated her objections to the current structure of the advisory class but also offered solutions:

> Yeah. Like I don't do anything in my advisory. It's like being in a whole campus out of class and the teacher is, like, 'Why are you off pace?' And you have to use the time to do it but if you are on pace, you don't really do anything. You just sit there. Like for half an hour. So it's not that great. I would go through and ask every teacher what students they want in their advisory class and so that they could say (pounding the desk), 'I want this student, this student, this student, because I think they need extra help or whatever it is.' And then the students that are like, on pace, put them with teachers that will help them do something that's next. Like, maybe, put all of the seniors with the English teacher so they can get through their senior project. Just a little something extra. Cause, like, 30 minutes, you could look at your life map, or this, or this. You know. It would just make more sense.

Field notes indicate that only two YPs commented on Advisory Period as being problematic.

Conclusion

This chapter documents results of data analysis regarding YPs' perspectives on components of CBE that contribute to student success and components of the model that could be improved to better support that success. Whether school-level or student-level,

these YP-identified components flow together, creating the unique learning environment that is Lindsay High School. Chapter 5 discusses this study's contribution to the literature, to professional practice, and then offers suggestions for further research with a focus on student perspectives.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

This intrinsic case study was designed to explore student perspectives regarding components of competency-based education (CBE) that contribute to student success and to identify components that could be improved to better support student success. Interviews, researcher-generated field notes, and student-provided artifacts provided the data for the study. This chapter presents a summary and interpretation of results of the investigation. The chapter also describes the study's contributions to the literature and implications for professional practice, then offers potential considerations for further study of student perspectives of competency-based education.

Youth participants in this study, identified as juniors and seniors, have been deeply involved in a paradigm shift within their district. The Lindsay Unified School District in Lindsay, California replaced their traditional model of education with one that is student-centered and competency-based. The transition involved in the move away from the Carnegie Model to CBE was not easy and required buy-in from all stakeholders including district faculty and staff, students, parents/guardians, business members, and the community at large. Reimagining the LHS graduate, and aided by Delorenzo's Re-Inventing Schools Coalition (RISC) and Marzano Research Center, Lindsay Unified School District has modified CBE to fit their unique community with remarkable success. In 2011, fewer than 40 percent of Lindsay High School graduates were proficient in

English Language Arts. That percentage rose to over 55 percent by 2014, a 15 percent improvement in three years. The gains were even greater for Lindsay's migrant and English language learners who marked gains of over 50 percent (California Department of Education, 2015).

Summary and Interpretation of the Results

This study was designed to identify the CBE components influencing student success in a public competency-based high school. Data for the intrinsic case study were collected at Lindsay High School (LHS) in Lindsay, California in November 2015. Semi-structured interviews were conducted with ten youth and two administrators. Additional data were collected through researcher-generated field notes and student-provided artifacts. Four research questions guided this study:

- Q1: What components of the school's competency-based learning model contribute to student success?
- Q2: How have these identified components contributed to student success?
- Q3: What components of the school's competency-based learning model could be improved in order to increase student success?
- Q4: How would improving these identified components contribute to an increase in student success?

Findings regarding LHS's organizational structure, in addition to personal understandings and experiences of learners, were used to answer each of the four research questions. Following established protocol, youth participants (YP) were asked to provide responses

to interview questions (Appendix C). The summary of findings is divided into three sections: Section One contains a summary of findings related to CBE components that contribute to student success and Section Two addresses findings related to CBE components that could be improved in order to increase student success; Section Three addresses findings related to student perspectives of components that emerging CBE schools should consider to successfully improve learner success.

CBE Components
Contributing to Student Success

To best answer research questions one and two, YPs were asked to identify components of CBE that contribute to his/her success at LHS. To elicit deeper understandings by the researcher, YPs were asked how, in particular, those specific components contribute to their success as learners at LHS. YPs had the ability to articulate their learning in a sophisticated manner that was concise and informative. Five school level components emerged as contributing to learner success at LHS: 1) Tangible Learning Supports, 2), Intangible Learning Supports, 3) Transparency of Systems, 4) School-Wide Culture Shift, and Continuous Program Improvement.

Tangible Learning Supports. It is, in part, the tangible and intangible support systems in place for learners at LHS that contribute to systemic transparency. As noted in Chapter 4, tangible learning supports such as measurement topics which are tied to learning standards, learning topics which guide the student through the MTs, and end-of-topic assessments as determined by individual Curriculum Department, are YP identified as effective tools that help them to be successful. Easily accessed content, clarity of

expectations, tracking tools, and explicit organizational strategies were also identified as instrumental in learner success, as was the access to technology and learning platforms. As YP1 explained:

> Like the teacher gives us the instructions and they give us, like, the worksheets that go with the instruction and then, um, like once we're, um and then we're just doing the worksheets and learn for ourselves and we can get ahead of the worksheets. Then every teacher has a website where they have all their notes and stuff for what they're going to teach ahead of time so we can go, we go on there if we want to get ahead, go there and do the work ahead.

Field notes indicate that, from the researcher's perspective, an advantage to this system is that most of the tangible learning (with the exception of technology) supports can be replicated to fit any CBE learning model regardless of fiscal considerations.

Intangible Learning Supports. LHS provides the formal instruction, significant peer learning opportunities, and the tangible supports that guide their learners toward success. While tangible learning support systems were connected to learner success at LHS, intangible learning supports were also identified. Bandura (1994) indicates that:

> A vast amount of social learning occurs among peers. In addition, age-mates provide highly informative comparisons for judging and verifying one's self-efficacy. Many social factors, apart from the formal instruction, such as peer modeling of cognitive skills, social comparison with the performances of other students, motivational enhancement through goals and positive incentives, and teacher's interpretations of children's successes and failures in ways that reflect favorably or unfavorably on their ability also affect children's judgments of their intellectual efficacy (Section IVD, Para.1).

The intangible learning supports discovered during data analysis indicate that pacing, the support of learning facilitators (LF), and peer interactions have been integral to learner success at LHS. The researcher noted the fluidity between pacing, learning facilitator

guidance, and peer collaboration. Learning occurs alongside of peers and through adult modeling in this environment.

The self-paced component of LHS's CBE learning model emerged as a significant factor contributing to individual learner success. Whether behind pace, on pace, or ahead of pace, YPs were appreciative of their system-wide individualized learning model. Most YPs indicated that the learning continuum is fluid, a part of the learning process, and there was no indication of stigma attached to those who perform at lower or higher ends of the spectrum. They were also able to see teaching and learning in a holistic manner that eliminated boundaries between grade levels and content areas. This approach, combined with mastery experiences, and self pacing through the curriculum contributes to learner's increased 100, 102, 111ficacy (Bandura, 1994).

Interestingly, this removal of structural barriers also influenced the way YPs discussed their ability to work outside of school hours, appearing appreciative of the opportunity to extend their learning. Aspects of Bandura's SCT (1977) was evident in each learner's approach to their studies and in the enthusiasm with which they discussed the intricacies of their learning model. The researcher noted and documented moments when YPs were eager to return to class whether to continue working with a peer or due to a desire to participate in a direct instruction activity that was interesting to them. FGP3 exclaimed, "I don't want to miss 5th! I'll miss too much" and FGP1, when talking to her peer said, "You can't miss 1st! I'll miss you too much!"

Transparency of Systems. The transparent system at LHS, which provides explicit standards-based learning targets enables individuals to self-monitor their learning. YPs were able to articulate their individual strategies and all indicated that at any given time they could answer the three key questions: "What are you learning?" "Why are you learning that content?" "What do you do if you get stuck in your learning process?" During an interview with one YP who has experienced a number of academic challenges, it was noted that he was excited to discuss the transparency of competency-based learning. He described it by saying, "I get the measurement topic, watch the videos on what you need to learn, take the test on what you need to learn, and then the final test at the end." YP1 indicated, "They give us the means to do that." Forbus said about the system, "It is about telling the truth about a student's current achievement and then, together, doing something about it, helping him or her become smarter."

Field notes indicate that a clarity of learning processes, pacing expectations, and anticipated outcomes was demonstrated by YPs during interviews. When asked about the sophisticated academic language used by all YPs interviewed, Sommers said, "You *should* be able to stop any of our learners and ask them about the performance-based system and they probably have the vocabulary to explain it to you."

It is important to understand that system transparency at LHS is not limited to learners. LHS and LUSD open their doors to visitors interested in observing their CBE model. With over 300 visitors last year alone, LUSD has generously helped numerous schools make informed decisions about implementing CBE in their school communities. As a model school, and as a recipient of several substantial grants, they are also under

scrutiny by the U.S. Department of Education and the Gates Foundation. In addition, their work with Marzano and other education experts continues and on-going data analysis provides documentation of efforts toward school improvement.

Culture Shift. It bears repeating that Sommers remarked that LHS is "the poster child for culture shift." Moving the school away from a Tier I/II school challenged by discipline and academic issues to the successful and positive campus that it is today was no small feat. The dramatic shift occurred through deliberate efforts on the part of administration and faculty to create a safe, nurturing, personalized CBE learning environment for all Lindsay youth. LUSD's growth mindset and the empathy Lindsay youth have developed for each other have contributed to learner success.

Growth Mindset. The growth mindset approach LHS is fostering helps children "feel good in the short *and* long terms, by helping them thrive on challenges and setbacks on their way to learning" (Dweck, 2015, para. 6). Lindsay learners are encouraged to develop greater self-efficacy, *grow their brains*, view learning as a process with all of its ups and downs, and develop a variety of strategies to use during learning. Field notes indicate the researcher's surprise at the ability of each YP to articulate their learning

Empathy. As discussed by Dewar (2009) and Ochu (2012), a number of studies have postulated that due to immature prefrontal cortex development, adolescents are self-absorbed and have a poor sense of empathy. With that preconception, the researcher was surprised with an unexpected theme that emerged during analysis of YP data. Analysis revealed a pattern of responses indicating concern for peers, family, and learning

facilitators. These concerns include how to help peers find intrinsic motivation, how to help them avoid procrastination, and understanding how difficult circumstances at home affects learning. YPs were also cognizant of the impact on academic performance when peers work outside of the school day or participate in sports or other school-related activities. Empathy was also extended to adults as YPs raised concerns about the ratio of LF to learner at 40 to one, the challenges new learning facilitators experience as they come into the CBE system at LHS, and recognizing the difficulty other schools will experience as they begin implementation of CBE.

Ochu (2012) states, "The average person has to focus on self mastery before becoming fully conscientious about the welfare of their respective communities." It is possible that with a growth mindset and a transparent, self-paced learning system that YPs are already experiencing self-mastery and thus are able to observe challenges others experience and feel empathy for them (Ormond, 2011).

The interaction between learners, learning facilitators, and administration has contributed to the feeling of community campus-wide. When youth see themselves as part of the community as a whole, they work to improve opportunities and experience for everyone (Mitra, 2006). The culture shift experienced here is contributing to a desire of many recent graduates to return to Lindsay after post-secondary education or training. Some want to teach or coach in CBE, some want to work with students in other capacities, some want to advance in agribusiness (B. Sommers, personal interview, November 15, 2015). The desire to grow and improve Lindsay is a remarkable outcome.

YP3 proudly stated, "Now everyone is so focused on making sure everyone has an equal opportunity to have education."

Continuous Improvement. A continual process of checking and adjusting structures and strategies to improve learner success occurs throughout the LUSD. This method of program improvement includes all stakeholders with particular attention paid to student perspectives. As discussed in Chapter 4, there is a reciprocal relationship between learners, administration, faculty, and staff. The CBE approach developed at LUSD ensures that every voice is heard and honored when there is a change in organizational constructs.

The continuous improvement process employed as part of LHS's CBE model implies program improvement begins to occur when learner and/or adult identify challenges to learner success and thus the system is constantly undergoing shifts to increase learner success. YPs did identify components of CBE at Lindsay High School which could be improved to further support learner success: 1) Scheduling, 2) Technology, and 3) Interactions with Learning Facilitators. Below are three examples that indicate LHS administrations' commitment to continuous program improvement:

Scheduling. As previously discussed, YP9 and YP10 the block schedule was not effective for all learners. The new Mod Schedule discussed in Chapter 4 will offer more flexibility for learners and learning facilitators as well as more time for learners to interact directly with learning facilitators. As noted by YP2:

> I know I'm gonna use it cause, like, I am already…well, mostly it's math. [Laughs]. I used to be so good in my freshman year and I'm just like, 'I

> don't know how to do this.' But now, I feel like I'll just use it with my teacher and get him to help me for it. Or with my main classes pretty much.

Technology. The second youth identified challenge to success, inferior education software, is being addressed with the development of a more sophisticated learning platform - giving learners, learning facilitators, and parent/guardians better access to curriculum. Field notes indicate that YPs enjoy their technology but don't want to rely on it completely. YP2 said, "I really like the system but I get bored sometimes. Like when the videos are too long." The varied uses of technology in the CBE teaching and learning process, from the learning platform to pre-recorded lessons make this a broad category with numerous components. This paper only addresses those perspectives of supports and challenges mentioned during YP iterviews.

Interactions with Learning Facilitators. There was an overall indication that learners would like to have more interactions with learning facilitators. While appreciative of technology as a learning support, they indicated that they learn better when a LF interacts with them.

An additional concern raised by YP that is not currently part of a change process was the desire to have a more focused Advisory Period. As administration is unaware that students have this perspective, they have not had the opportunity to work with youth to improve Advisory Period for all learners.

CBE Components that Could be Improved to Support Student Success

To best answer research questions three and four, YPs were asked to identify components of Lindsay High School's CBE that could be improved to support learner success at LHS. To elicit deeper understanding by the researcher, YPs were asked how, in particular, those program modifications would improve or support learner success at LHS.

Findings for Lindsay High School. YPs, nine of whom have attended Lindsay schools since the paradigm shift and one who transferred in to LHS from a traditional public school in another state, struggled to identify areas that would warrant program modification. Of the ten youth participants, all ten indicated an overwhelming appreciation for their CBE model.

Interview Question 6 asked YPs, "If you could influence the continued development of this program, what would you change?" Typical responses fell into categories such as Pacing. YP1 said, "Like, if we are ahead, we have to do our own work, we have to look up our own stuff and, um, sometimes it gets like too much but like it also like makes us better for college or something." Data analysis also revealed a desire by YPs to have stricter deadlines enforced. As said by YP4, "We don't have official deadlines, but they, the teachers set target dates for us . . . so falling behind is a really big fear."

Three responses indicated a desire to have increased interaction with learning facilitators. As YP1 continued, "Sometimes when the teacher is helping mostly the

students that are behind pace, instead of helping those that are ahead of pace. Yeah, the teacher always helps, obviously, the ones that are behind." YP7 also indicted that it is hard to get one-on-one time with teachers and as noted earlier, and worth repeating:

> because there's just something about receiving information from a machine. When a teacher grades you, it's much more personal and they can guide you more. It's just like you get so much more information from a teacher. They explain themselves more 'cause they have to physically hand you, hand you, the paper back and, like, explain themselves more and you're like, 'Oh, I see! I see that.'

The only other suggestion for program modification that would enhance learner success was a request for Advisory Period modification to make it more effective for learners.

Each YP was supportive of LHS and their CBE model as indicated by statements such as, "I love this" (YP1), "Yeah, I think, and um, in general this system works really good" (YP10), "The system works very well" (YP1), and "It's a good system if you use it right" (YP4).

Findings to Guide Emerging Competency-Based High Schools

In response to Interview Question 7, "If you could help other schools develop a program like this one, what advice would you offer?" YPs were excited and very forthcoming. Suggestions were offered for adult and youth alike. In respect to offering advice to adults involved in the development of CBE public high schools, YP4 offered:

> Well, I feel like they should really think about their students, because, I mean, for me it's good. I like it. I like being able to work ahead and not wait until everyone was done, and so I wouldn't just, like, be sitting there doing nothing. So I like working ahead and going to the next thing. So I think that's going to be good for their students.

YP9, YP 1, and YP#3 indicated that teachers needs to be invested in the curriculum and that every teacher from each department needed to be on the same page, using the curriculum. YP5 suggested that learning facilitators provide ample time for student interactions. YP2, YP8, and YP9 suggested that teachers should be strict with deadlines and, specifically, having students move at teacher pace and above, not behind pace. Finally, YP6 suggested that there be a focus on helping seniors and athletes work to their full potential.

While not asked to offer advice to students in emerging competency-based high schools, YP2, YP6, and YP9 urged students to not procrastinate. It could be argued that this advice, intended to help other schools during development and implementation of CBE, might reflect perspectives about their own learning environment as well.

Contributions to Literature

The study of public schools implementing competency-based education is limited in quantity as this educational paradigm shift is in its infancy. This study made several contributions to the literature concerning competency-based education, specifically, student perspectives of their experiences with competency-based education in a public high school. The findings provide insight into the nature of youth-identified components of CBE perceived as supporting their success and identification of program modifications that would better support their learning.

In 2015, Lindsay Unified School District graduated the second class of learners who had completed all four of years of their high school studies in a CBE paradigm. This study offered perspectives from youth who will be in the second and third graduating

classes of LHS, who have experienced a tremendous change in their education paradigm. Data indicated that individualized pacing, a transparent learning system, and support systems contributed to learner success.

Pacing emerged as the most rewarding and frustrating component of CBE, according to the YPs. Each YP spoke to the stresses connected to being behind pace in learning as well as the pride experienced when ahead-of-pace. It is critical to note that Lindsay learners accept the experience of performing at every point on the continuum of learning as a natural progression, with no stigma attached.

Transparency of learning and transparency of systems have been hallmarks of implementation for CBE (DeLorenzo, et al., 2009; Silva, et al., 2015). What was not previously known was that youth perceived this system transparency as key to their success. Findings from this study suggest this transparency encourages organization and self-efficacy, providing the foundation that fosters an ownership of learning necessary to successfully navigate CBE.

YPs identified a number of supports that guide and support their educational experience with CBE including specific learning tools, technology, peer learning, and targeted teacher interactions. As many in our nation explore schooling options for youth including blended and on-line learning, it is an important addition to the literature to recognize that these these students as they clearly identified a desire for more interactions and support from teachers/learning facilitators.

YPs in this study defined success as setting and meeting goals. As much extant literature indicates learners with low-socioeconomic status, ESL learners, and children of

undereducated parents/guardians statistically perform at lower academic levels than others (Adelman and Taylor, 2011), it is of great import to not only examine data from standardized test results documenting improvements in LHS's academic standing, but to listen to the voices of the student participants who express pride and joy in their accomplishments and want to share that with others. This study provides a framework for further study with youth enrolled in CBE public high schools.

Finally, finding from this study indicate that Lindsay learners, while overwhelmingly content with CBE, still desire some of the components of the traditional education model including more teacher interaction, deadlines, and relatively traditional assessments but with the opportunity to develop their own demonstrations of mastery when appropriate.

Implications for Education

As indicated by administrators, learners, and a review of the literature, LUSD and the Lindsay community put enormous effort into a creating a student-centered Pre-K through 12 learning environment. By making even the subtle language shift from students to learners, teachers to facilitators, and schools to learning environments, they created a learning community that is preparing youth to successfully participate in college and career after graduation. A snapshot of the most current gains by learners was presented to the LUSD school board in January 2016 (lindsay.k12.ca.us/departments/BOE). Reading proficiency increased an average of ten percent across grades 9-12 between the 2013/14 and 2014/15 academic years, with reading proficiency for English language learners increasing eight percent. Lindsay High

School graduates matriculating to four year universities increased 20 percent from 21 to 41 percent from 2010 to 2015. Additionally, there has been a dramatic reduction in discipline referrals, suspensions, and expulsions. This evidence of the continued successes experienced by LHS learners indicates a robust system effective for Lindsay youth that has changed the way education is viewed by youth. As observed by YP6:

> They drop out for, like, a little while and they come back and finish school. There's always that opportunity. You can go to the continuation school or do on-line courses. So, there's like all these options to keep going. You don't have to quit because, just because it got too hard.

In the CBE model, failure or poor performance may be part of the student's learning curve, but it is definitely not an outcome (Sturgis, et al., 2010; Sturgis, Patrick, and Pittenger, 2011).

Perhaps one of the most exciting implications for education is that this CBE model has been designed for replication (Johnson, 2014). According to Sommers, it was always the goal to reach out to other schools and districts and support transition efforts. In late 2015 (as reported by The Foothills Sun-Gazette, 2016), LUSD, Milpitas Unified School District, and the Summer Charter Academy were awarded a shared $499,860 grant to:

> Identify key deliverables and a strategic plan for continuous improvement and scaling of personalized education. Personalized learning is tailoring learning for each student's strengths, needs and interests - including enabling student voice and choice in what, how, when, and where they learn - to provide flexibility and supports to ensure mastery of the highest standards possible.

While gains are made by Lindsay learners in academics and discipline, grants are awarded to the district, and recognition of the successes of their CBE model continues to

grow, Sommers and Forbus both indicate the need to continue to refine their program. Forbus, with a smile, said, "We are not perfect. As long as you work with teenagers, you will never be perfect."

Suggestions for Further Research

As is evidenced by the keen interest in LUSD, numerous studies are either in process or waiting for approval. This study was the first to focus primarily on student perspectives of their experience with CBE. Future research, in line with this study, would do well to examine the following three areas: 1) inclusion of youth participants of every age and that represent the full continuum of learning from emerging to mastery. As Sommers indicated, "Studies of perspectives of students in the lower 1/3 of school standings should be investigated. If PBL reaches all learners effectively, all students should be able to articulate their learning in some manner;" 2) Analyzing and comparing/contrasting data gathered from youth participants in diverse regions of the United States to identify commonalities and divergent perspectives that would then inform implementation or continuous improvement in CBE public schools.; and 3) Conduct a mixed methods study that would allow for the collection of data from a larger sample of learners while still providing the depth and breadth of understanding that comes from a small cohort of participants providing qualitative data.

Conclusion

Chapters 1 through 3 of this dissertation discuss public school reform efforts undertaken by the U.S. Federal Government in response to the 1983 *A Nation at Risk:*

The Imperative for Educational Reform indictment of the American public education system. Chapter 1 discusses the need for an educated work force and the impact of school drop-out rates on the individual and the community at large. Notably, high school graduates earn higher taxable income, engage in less criminal behavior, receive fewer social services, have higher voter turnout rates, qualify for the armed forces, and have better health with longer life expectancy (America's Promise Alliance, 2016). The United States Department of Education (2015) states the following:

> A generation ago, good jobs — and a path to the middle class — were available to individuals who did not finish high school. In today's world, those paths are rapidly disappearing. More than ever, a full, quality education is a prerequisite for success and economic security — not just for individuals, but also for nations. Today, employers seek experts and skilled individuals, regardless of national boundaries, ratcheting up the stakes for nations to educate their people well. Yet even as the premium on education has increased, the United States is falling behind. A historic and worldwide recession in 2009 further increased the urgency for America to improve its education systems. And while that need touched communities everywhere, it was most pronounced in communities of poverty and disadvantage. Gaps in college opportunities for individuals in the lowest-income brackets persist, as low-income students are less likely to enroll and graduate from college. Then and now, the need for educational improvements, for students and for the nation, is profoundly urgent.

Higher incomes lead to increases in wealth accumulation; over a lifetime, graduates average ten times the financial wealth accumulation of non-graduates (U.S. Bureau of Labor Statistics, 2014). Many studies indicate that the increased financial wealth of graduates translates into increased government revenues, lowered government spending, reduction in crime, and increased health benefits (U.S. Bureau of Labor Statistics, 2014;

Alliance, 2008; McKeon, 2006) and thus it becomes a social and economic imperative to improve our educational system to ensure all students graduate with the knowledge and skill they need to lead successful post-secondary lives.

Chapter 2 centers around Federal school reform efforts undertaken since 2000 including the No Child Left Behind Act of 2002, Race to the Top competitive education grants, and the adoption of Common Core State Standards by most states. There have been challenges in funding and implementation for each reform but, nonetheless, each has produced some positive results (Beattie, 2012; Busher, 2012; Mitra, et al., 2009; Silva, et al., 2015; U.S. Department of Education, Fundamental, 2015). Chapter 2 also provides a discussion of competency-based education (CBE) which builds on some of those positive results but moves us away from the Carnegie time-based education model, focusing on a curriculum that is student-centered and self-paced where personalized mastery is the goal.

Chapter 3 discusses the methods and procedures for this intrinsic case study and Chapter 4 introduces the results. As a nation we are witnessing an increasing number public school districts receiving waivers from the Carnegie Unit. Competency-based education (CBE) is one reform effort that has demonstrated successes in a variety of public school settings (Haystead, 2010). This study focuses on a high school which has experienced many gains since the implementation of CBE, Lindsay High School, Lindsay, California, offering the perspectives of youth who have spent a minimum of two years learning in a CBE model.

DeLorenzo (personal conversation, 2011) described the paradigm shift from the traditional education model to CBE as not the "cutting edge of school reform, but the bleeding edge" because the initial shift is difficult for students and faculty alike and may be met with resistance. But it is a shift many are prepared to make as the need to improve our public school system becomes even more imperative. LUSD took an enormous leap of faith when they first challenged themselves and their community to reimagine an ideal Lindsay graduate. Armed with a profound belief that all children can learn and insight that those learners are the future of the Lindsay community, the challenge to improve education and outcomes for all students was met head on.

Some experts might have the researcher consider other influences guiding student success at Lindsay High School, such as financial incentives, family-support, or teacher training as plausible rival explanations for increased student success at Lindsay (Yin, 2014; Mirriam, 1998). However, these rival explanations were not supported by the data in this study because 1) no youth participant mentioned having access (upon graduation) to bank accounts set up for them through various contributors with the intention of supplementing costs of college or career training, 2) family support for Lindsay learners is limited to the English language proficiency and educational attainment of their parents/guardians and, 3) according to Sommers and Forbus, teacher turn-over was higher than average during the paradigm shift.

Data analysis for Sections 4 provided unanticipated *ah ha* moments for the researcher. In any learning environment there are intersections between teaching, learning, and the structures of the public school system. In particular, the empathy

learners demonstrated for each other and the dramatic culture shift which has occurred in the Lindsay learning community was profound. As CBE spreads to schools, districts, and states, it is imperative that we investigate student outcomes in these programs. It is not enough to aggregate quantitative data provided by these schools or through standardized testing; we need to identify components that contribute to learner success and identify program modifications that could be made to support that success. There is no better way to do this than to include student perspectives in the research (DeLorenzo et al., 2009; McGarvey, 2015; Mitra, et al., 2009; Silva, et al., 2015; Sullivan, 2012; Sullivan and Downey, 2015).

REFERENCES CITED

Abc30.com. (2011). *52 Arrested in Tulare County norteno gang sweep*. Retrieved fromabc30.com/news/place/Lindsay

Adelman, H. S. & Taylor, L. (2011). Turning around, transforming, and continuously improving schools: Policy proposals are still based on a two rather than a three component blueprint. *International Journal of School Disaffection*, 8(1),(Spring)

Adequate yearly progress. *Education Week*. (2011, Jul). Retrieved from http://www.edweek.org/ew/issues/adequate-yearly-progress.html

Alliance, The. (2008). *Facts for education advocates: the economic impact of education (copublished with the College Board)*. Retrieved from http://all4ed.org/reports-factsheets/facts-for-education-advocates-the-economic-impact-of-education-copublished-with-the-college-board

Anderson, T. (2014). *Transforming educational paradigms: A case study of two different schools on the path toward implementing personalized mastery practice*. (Doctoral Dissertation). Retrieved from http://www.montana.edu/etd/

Angus, L. (2006). Educational leadership and the imperative of including student voices, student interests, and students' lives in the mainstream. *International journal of leadership in education: Theory and practice*, 9:4, 369-379, DOI: 10.1080/13603120600895544

Ansary, T. Education at Risk: Fallout from a Flawed Report. Edutopia Jan 19, 2015

Aud, S., & Hannes, G. [Eds.]. (2010). *The condition of education 2010 in brief* (NCESW 2010029). National Center for Education Statistics, Institute of Education Sciences

Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998).

Beattie, H. (2012). Amplifying student voice: the missing link in school transformation. *Management in education*. 26(3) 158-160. Retrieved from mie.sagepub.co

Beaudoin, N. (2005). *Elevating student voice: How to enhance student participation, citizenship and leadership*. London and New York: Routledge

Berrett, D. (2012). Harvard conference seeks to jolt university teaching. *The Chronicle of Higher Education*. Retrieved from www.linkedin.com/news?actionBar=&articleID=5571

Birch, B. (2012). Obama announces no child left behind flexibility. *Education Week*. Retrieved from http://www.educationnews.org/education-policy-and-politics/obama- announces-no-child-left-behind-flexibility

Bishop, P. & Pflaum, S. (2005) Student perceptions of action, relevance, and pace. *Middle School Journal*. Retrieved from http://files.eric.ed.gov/fulltext/EJ752832.pdf

Borre, D. (2012). *Barak Obama charter schools "most improved*." Press Release obtained from www.IngeniumSchools.org

Bray, B. (2012*). 10 steps to encourage student voice and choice*. Retrieved from barbarabray.net/2012/02/03/1010-steps to encourage-student-voice-and-choice

Bundick Matthew J. Quaglia Institute for Student Aspirations University of Pittsburgh Commentary draft of paper presented at the AERA 2012 Conference in Vancouver, BC, Canada

Busher, H. (2012). Students as expert witnesses of teaching and learning. *Management in Education, Special Issue on Student voice (in press)*

California Department of Education. (2015). *Definitions of tiers I, II, and III*: guidance from U.S. Department of Education around school improvement grant requires states to identify schools in three tiers. Retrieved from http://www.cde.ca.gov/ta/ac/pl/definitions.asp

_____. (2014 -15). *School Accountability Report Card*. Retrieved from (SARC)://www.cde.ca.gov/ta/ac/sa/index.asp School

Camera, L. (2015). *Senate passes esea rewrite with big bipartisan backing, 81-17*. Retrieved from http://blogs.edweek.org/edweek/campaign-k-1 2/2015/07/senate_passes_esea_rewrite_wit.html

Carini, R. & Kuh. (2006). Student Engagement and Student Learning: Testing the Linkages* Retrieved from Research in Higher Education Feb 2006, Volume 47, Issue 1

Cassidy, A. (2015). *Thousands of students opt out of Common Core tests in protest. Apr 18, 2015*. Retrieved from www.pbs.org/newshour

Cavanagh, S. (2012). States loosening "seat time" requirements. Education Week. Retrieved from http://www.edweek.org/ew/articles/2012/03/07/23biz-s tate.h31.html

Censusviewer.com/city/ca/Lindsay/2011

Cerbin, B. (n.d). Assessing how students learn. *Carnegie foundation for the advancement of teaching*. Retrieved from www.carnegiefoundation.org

City-data (n.d.). *Lindsay, California*. Retrieved from http://www.city-data.com/city/Lindsay-California.html

Civic Enterprises (2016). *State progress reports: Building a grad nation 2016*. Retrieved from http://www.civicenterprises.net/home

Cole, R. (2016). Educating everybody's children: Diverse teaching strategies for diverse learners. *ASCD*. Retrieved from http://www.ascd.org/publications/books/107003.aspx

College Board. (2015). 2015 *College board program results*. Retrieved from collegebord.org/program-results

Common Core Standards Initiative. (2011). Retrieved from http://www.corestandards.com

Conley, D. 2010). *College and career ready: Helping students succeed beyond high school*. Retrieved from www.avid.org/dl/res_research/research_collegeandcareerready.pdf

Constas, M. A. (1992). Qualitative analysis as a public event: The documentation of category development procedures. *American Educational Research Journal, 29*(2), 253-266. Retrieved from: www.nova.edu/ssss/QR/BackIssues/QR2-1 /aronson.html

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Darling-Hammond, L. (2006). No child left behind and high school reform. *Harvard Education*

_____. 1993). *Setting Standards for Students: The Case for Authentic Assessment*. DOI:10.1177/019263659307755604NASSP Bulletin Nov 1993 vol. 77 no. 556 18-26

Darling-Hammond, L. & Adamson, F. (2010). *Beyond basic skills: The role of performance assessment in achieving 21st century standards of learning*. Stanford Center for Opportunity Policy in Education. Retrieved from

https://scale.stanford.edu/system/files/beyond-basic-skills-role-performance-assessment achieving-21st-century-standards-learning.pdf

Datnow, A., & Kemper, E. (2003). Connections between federal, state, and local levels in the implementation of comprehensive school reform. *Johns Hopkins University Paper Presented at the annual meeting of the American Educational Research Association,* April, 2003, Chicago. Retrieved 6/16/2011 from http://www.eepa.aera.net

Davidson, E., Reback, R., Rockoff, J., & Schwartz, H. (2013). *Fifty ways to leave a child behind: Idiosyncrasies and discrepancies in states' implementation of NCL*. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2258272

Dee, T., & Jacob, B. (2010). The impact of no child left behind on students, teachers, and schools. *Brookings Papers on Economic Activity*. Retrieved from www.nber.org/papers/w15531

DeLorenzo, R. (2011). Personal Communication

DeLorenzo, R. A., Battino, W., Schreiber, R., & Carrio, B. (2009). *Delivering on the promise*. Bloomingham, IN: Solution Tree Press

Dewar, G. (2009). Growth mindset, revisited. Retrieved from http://edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the-growth-mindset.html

Dewey, J. (1938). *Experience and Educaton*. New York: Kappa Delta Pi

Dillon, S. (2011). Overriding a key education law. *The New York Times*. P. A12

District.lindsay.k12.ca.us

Dweck, C. (2015). Carol Dweck revisits the 'growth mindset.' *Education Week*. Retrieved from http://www.edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the-growth-mindset.html

_____. (2007). *Mindset: The new psychology of success*. New York: Ballentine Books

Ed Week. (2011). *No child left behind*. Retrieved from edweek.org/ew/isues/no-child left-behind-update

Education Commission of the States. (2016). Standard high school graduation requirements (50-state). Retrieved from http://ecs.force.com/mbdata/mbprofall?Rep=HS01

Flock, E. (2011). APS (Atlanta public schools) embroiled in cheating scandal. *The Washington Post*. *7/11/2011*. Retrieved from http://Washingtonpost.com/aps-atlanta-oublic-schools-embroiled-in-cheating-scandal

Foothills Sun Gazette (2016). *LUSD awarded funding to get "personal."* Retrieved from http://www.thesungazette.com/article/education/2016/01/13/lusd-awarded-funding-to-get-personal/

Forbus, A. (2015). Personal Interview. Lindsay: Nov 20, 2015.

Fox, K., Bedford, M., Connelly. (2013). Student voice and resilience in learning. *ASCD Express*. Sept 12, 2013 Vol8(25). Retrieved from http://www.ascd.org/ascd-express/vol8/825-fox.aspx

Freeland, J. (2014). *From policy to practice: How competency-based education is evolving in New Hampshire*.

Gollnick, D., & Chinn, P. (2009). *Multicultural education in a pluralistic society*. New Jersey: Pearson

Graham, E. (2013). 'A nation at risk' turns 30: Where did it take us? *neaToday*. Apr 25, 2013. Retrieved from http://neatoday.org/2013/04/25/a-nation-at-risk-turns-30-where-did-it-take-us-2/

Great Schools. (2010). IDEA 2004 close up: Evaluation and eligibility for specific learning disabilities. *Great Kids*. Retrieved from http://www.greatschools.org/gk/articles/evaluation-and-eligibility-for-specific-learning-disabilities/

Griswold, L. (2012). Lindsay unified wins $10 million race to the top grant. *The Fresno Bee*. Dec 11, 2012. Retrieved from http://www.fresnobee.com/news/local/education/article19515627.html

Gross, B., Booker, T., & Goldhaber, D. (2009). Boosting student achievement: The effect of comprehensive school reform on student achievement. *Educational Evaluation and Policy Analysis*. 2009 31: 111, Retrieved 6/18/2011 from http://www.epa.sagepub.com/content/31/2/111

Guion, L. (2002). *Triangulation: Establishing the validity of qualitative studies*. University of Florida. Retrieved from

http://sites.duke.edu/niou/files/2014/07/W13-Guion-2002-Triangulation-Establishing the-Validity-of-Qualitative-Research.pdf

Haystead, M.W. (2010). *RISC vs. non-RISC schools: A comparison of student proficiencies for reading, writing, and mathematics*. Englewood, CO: Marzano Research Laboratory

Hermano, J. & Linn, R. (2013). *CRESST report 823. On the road to assessing deeper learning: the status of Smarter Balanced and PARCC assessment consortia*. Los Angeles: National Center for Research onEvaluation, Standards, and Student Testing. Retrieved from http://www.cse.ucla.edu/products/reports.php

Hicks, K. (2004). Lindsay is AVID about program. *The Porterville Recorder*. Retrieved from http://www.recorderonline.com/lindsay-is-avid-about-program/article_8523afaa-81bc-5d5e-a0f7-587160f6f81e.html

Home Educators Association of Virginia (2015). *Typical course of study high school program*. Retrieved from http://heav.org/

How, W. & Lisi, P. (2014). *Becoming a multicultural educator: Developing awareness, gaining skills, and taking action*. Thousand Oaks: Sage (p. 10)

Islam, A. (2012). Afterword. The space between? The value of student voice from a student's perspective. *Management in Education*. 2012: 26: 164. DOI:10.1177/0892020612445703

Jerald, C. (2009). *Defining a 21st century education*. The Center for Public Education. Retrieved from http://www.centerforpubliceducation.org/Learn-About/21st-Century/Defining-a-211st-Century-Education-Full-Report-PDF

Jobrack, B. (2012). *Tyranny of the textbook*. Lanham: Rowman & Littlefield Publishers

Johnson, C. (2014). *In a rural California school district, a "quiet revolution" in learning*. Spark Action.

Kidron, Y. & Darwin, M. (2007). A systematic review of whole school improvement models. *Journal of Education for Students Placed at Risk* 12(1), 9–35 Retrieved from http://sparkaction.org/content/ruralcalifornia-school-district-%

Klein, A. (2015). Q & A: Arne Duncan's big mistake? 'I Should Have Done Waivers Earlier. *Education Week*, Sept 17, 2015

Lamperes, B. (2005). *Making change happen: Shared vision, no limits*. Lanham: Scarecrow

Langford International. (2010). *Tool time for education*. Molt: Langford International, Inc.

Levin, B. (2000). Putting students at the center in education reform. *International Journal of Educational Change*, *1*(2), 155–172.

Lichtman, M. (2010). *Qualitative research in education: A user's guide*. Los Angles: Sage

Lincoln, Y. S. & Guba, E. G. (1985). *Naturalistic inquiry*. Thousand Oaks: Sage

Lindsay.k12.ca.us. (nd). City of Lindsay

Lindsay.k12.ca.us. (2016). *Progress on board priorities & goals* 2015.2016. Retrieved from Lindsay.k12.ca.us/departments/BOE.htmlProgress on Board Priorities & goals2015

Lindsay.k12.us/file/library/Infographic_1.16.16.pdf

Lindsay.k12.ca.us/filelibrary/2014_School_Accountability_Report_Card_912_Lindsay_Senior_High_School_20150124.pdf

Lindsay, California (n.d.). Retrieved from wikipedia.org/wiki/Lindsay,_California

Lindsay and District Chamber of Commerce (n.d.). Retrieved from Thelindsaychamber.com

McGarvey, B. (2015). Lindsay Unified School District. *Pioneering*. 12/22/2015(4). Retrieved from www.education-reimagined.org

McKeon, D. (2006). Research talking points on dropout statistics. *National Education Association*. Retrieved from http://www.nea.org/home/13579.htm

McNeil, M. (2011). Are 82% of schools 'failing' under *NCLB*, as Duncan warned? *Education Week*. Aug 3, 2011. Retrieved from http://www.edweek.org

McRel. (2000). Keeping the focus on learning. *Noteworthy Perspectives*. www.abcte.org/files/NW-focus.pdf

Manefield, L., & Collins, R, & Moore, J. (2007). *Student voice: A historical perspective and new directions*. Victoria Department of Education. Retrieved from http://trove.nla.gov.au/work/153066936

Marzano, R. J. (2010). *Formative assessment & standards-based grading: Classroom strategies that work*. Bloomington: Marzano Research Laboratory

Marzano, R. J., Pickering, D. J., Pollock, & J. E. Pearson. (2001). *Classroom instruction that works: Research- based strategies for increasing student achievement*. Upper Saddle River, NJ: Merrill Prentice Hall

Maxwell, J. (2005). *Qualitative research design: An interactive approach*. Thousand Oaks: Sage

Mehta, J., Schwartz, R., & Hess, F. [eds]. (2012). *The futures of school reform*. Cambridge: Harvard Press

Michelman, B. (2012). The never-ending story of ESEA reauthorization. *ASCD*. Spring 2012 (18)1. Retrieved from http://www.ascd.org/publications/newsletters/policy_priorities/vol18/num01/The-Never-Ending_Story_of_ESEA_Reauthorization.aspx

Mirriam, S. (1998). *Qualitative research and case study*. San Francisco: Wiley & Sons, Inc.

Mitra, D. (2008). Balancing power in communities of practice: An examination of increasing student voice through school-based youth–adult partnerships. Journal *of Educational Change*. (9)3. Retrieved from http://link.springer.com/article/10.1007/s10833-007-9061-7

_____. (2006). Student voice from the inside and outside: The positioning of challengers. *International journal of leadership in education: Theory and practice*, 9:4, 315-328, DOI: 10.1080/13603120600895379

Mitra, D. & Gross, S. (2009). Increasing Student Voice in High School Reform: Building Partnerships Improving Outcomes by Dana L. Mitra and Steven Jay Gross. *Educational Management Administration & Leadership*. Vol 37(4) 522–54. DOI: 10.1177/1741143209334577

Moran, R. (2009). Education reform: An analysis of the purpose and function of public education. *University of Tennessee Honors Thesis Projects*. Retrieved from http://www.trace.tennessee.edu/utk_chanhonoproj/1300

Mortenson, T. (2009). *Postsecondary Opportunity*. Retrieved from http://www.postsecondary.org

National Academy of Education, White Papers Project. (2009). Recovering the promise of standards-based education. Retrieved from http://www.naeducation.org/NAEd_White_Papers_Project.html

National Center for Education Statistics. (2001). *The condition of Education 2001*. Retrieved from nces.ed.gov

_____. (2015). *The condition of education 2015*. Retrieved from nces.ed.gov

_____. (2015). *Public high school graduation rates*. Retrieved from http://nces.ed.gov/programs/coe/indicator_coi.asp

_____. (2012). *Common core of data*. Retrieved from http://www2.ed.gov/admins/lead/account/consolidated/index.html.

National Commission on Excellence in Education. (1983). A Nation at Risk: The Imperative for Educational Reform: A Report to the Nation and the Secretary of Education United States Department of Education. Retrieved from http://datacenter.spps.org/uploads/sotw_a_nation_at_risk_1983.pdf

National Governors Association. (2013). Competency-Based Education. Retrieved from http://www.nga.org/files/live/sites/NGA/files/pdf/2013/1309GEPAInstituteCBE

Nations Report Card, The. (2014). *2014: Mathematics and reading at grade 12 – Academic preparedness research*. Retrieved from http://www.nationsreportcard.gov/reading_math_g12_2013/#

New Hampshire Board of Education. (2014). *State Model Competencies*. Retrieved from http://education.nh.gov/innovations/hs_redesign/competencies.htm

Noble Noble, 2006 Education reform implementing the Baldridge in education continuous improvement process: "Lessons learned" from schools who implemented Baldridge in education (BiE): Including the first three K-12 BiE award winners. University of Laverne Dissertation UMI Number: 3218806

Organisation for Economic Co-operation and Development. (2011). *Education at a glance 2011; oecd indicators*. OECD Publishing. Retrieved from http://www.dx.doi.org/10.1787/eag-2011-en

_____. (2012). *PISA 2012 Results in focus: What 15-year- olds know and what they can do with what they know*. Retrieved from http://www.oecd.org/pisa/keyfindings/pisa-2012-results- overview.pdf

Ormond, J. 2011. Educational psychology: Developing learners, 7th ed. Boston: Pearson

Outhouse, C. (2012). Carnegie units and high school attendance policies: An absence of thought? *Journal of Cases in Educational Leadership*. Dec 2012; vol.15, 4: pp. 3-21

Pace, L., Moyer J., & Williams, M. (2015). Building Consensus and Momentum: A Policy and Political Landscape for K-12 Competency Education. Retrieved from http://www.nmefoundation.org/research/competency-bases-assessment

Patrick, S. & Sturgis, C. (2013). *Cracking the code: Synchronizing policy and practice for performance-based learning*. Retrieved from http://www.inacol.org/resources/resource-search/?resource_types=20

Patton, M. (2002) *Qualitative research & evaluation methods* Thousand Oaks: Sage

Peterson, P., Lastra-Anadon, C., Hanushek, E., & and Woessmann, L. (2011). *Globally Challenged: Are U.S. Students Ready to Compete? The latest on each state's international standing in math and reading*. Retrieved from http://www.hks.harvard.edu/pepg/PDF/Papers/PEPG11-3_GloballyChallenged.pdf

Phillips, V., & Wong, C. (2010). Tying together the common core of standards, instruction, and assessments, *Phi Delta Kappan*, Vol. 91, No. 5, 37-42

Quattrocchi, C. (2014). *How Lindsay Unified Redesigned Itself from The Ground Up*. Retrieved from www.edsurge.com/news/2014-06-17-how-lindsay-unified-redesigned-itself-from-the-ground-up

Re-inventing Schools Coalition. (2011). *One million students owning their learning*.Retrieved from http://www.reinventingschools.org

Research Center: *No child left behind*. Updated September 19, 2011. Retrieved from http://www.edweek.org/ew/issues/no-child-left-behind

Robinson, Sir Ken. (2010). *RSAAninmate – Changing Education Paradigms*. Retrieved from http://www.youtube.com

Rolfe, G. (2006). Validity, trustworthiness and rigour: quality and the idea of qualitative research. *Journal of Advanced Nursing* 53(3), 304–310

Rudner, L. & W. Schafer. (2002). *What Teachers Need to Know About Assessment*. Washington, DC: National Education Association. Retrieved from http://echo.edres.org:8080/nea/teachers.pdf

Savrock, J. (2008). Student voice is an intregal component of school reform. Retrieved from www.ed.psu.edu/news/news-items-folder/mitrastudentvoice

Schunk, D. (2008). *Learning theories: an educational perspective*. Upper Saddle River, N.J.: Pearson/Merrill

Silva, E., White, T., & Toch, T. (2015). *The Carnegie unit: A century old standard in a changing educational landscape*. *CA: Carnegie Foundation for the Advancement of Teaching*. Retrieved from www.carnegiefoundation.ord

Sloan, W. (2010). Coming to Terms with Common Core Standards. *ASCD*. Dec 2010, Vol 16(4). Retrieved from ASCD http://www.ascd.org/publications/newsletters/policy-priorities/vol16/issue4/full/Coming-to-Terms-with-Common-Core-Standards.aspx

Smarter Balanced Assessment Consortium. (n.d.) More than just a test. Retrieved from http://www.smarterbalanced.org/

Snow-Renner, R., & Lauer, P. (2005). *Standards-based education: putting research into practice*. McRel: Colorado

Soundout. (n.d.). *Student Voice*. Retrieved from https://soundout.org/?s=individual+and+collective+perspectives+

Soy, S. (1997). *The case study as a research method*. Unpublished paper, University of Texas at Austin

Spahiu, I. (2013). Using Native Language in ESL Classrooms. Retrieved from http://www.academia.edu/4481583/Using_Native_Language_in_ESL_Classroom_by_Dr._Isa_SPAHI

Stack, B. (2013). Competency-Based Grading and Common Core Math: A Perfect Match? Retrieved connectedprincipals.com/archives/8958

Stillwell, R., Sable, J., & Plotts, C. (2011). *Public school graduates and dropouts from the common core of data: School year 2008–09* (NCES 2011-312)

Strauss, E. (2014). *Everything you need to know about Common Core*. *Washington Post*. Jan 18, 2014

Sturgis, C., & Patrick, S. (2010). *When Failure Is Not an Option: Designing Competency-based Pathways for Next Generation Learning*. Vienna, VA:

International Association for K–12 Online Learning. Retrieved from http://depts.washington.edu/uwcel/inacol_failurenotoption.pdf

Sturgis, C., Patrick, S., & Pittenger, L. (2011). *It's Not a Matter of Time: Highlights from the 2011 Competency-Based Learning Summit*. Vienna, VA: International Association for K–12 Online Learning. Retrieved from https://www.inacol.org/

Sullivan, S. (2012). *Outside of the box: Shifting from traditional to performance-based curriculum and assessment*. (Master's Thesis). Retrieved from http://www.montana.edu/etd/

Sullivan, S & Downey, J. (2015). Shifting educational paradigms: From traditional to competency-based education for diverse learners. *American Secondary Education*. Vol. 43, Num 3

Tulare. (2007). *Gang Summit*. Retrieved from. http://www.co.tulare.ca.us/pdfs/LawEnforcementPresentation.pdf

Towncharts. (2016). Retrieved from http://www.towncharts.com/California/Demographics/Lindsay-city-CA Demographics-data.html

Uchu, U. (2012). Is slow maturation of the prefrontal cortex correlated with empathy? Retrieved from com/blog/promoting-empathy-your-teen-201209/is-it-normal-teenagers-lack-empathy. Posted sept 17 2012

U.S. Bureau of Labor Statistics 2014. *Monthly Labor Review*. Retrieved from http://www.bls.gov/opub/mlr/2014/home.htm

U.S. Census 2010. Retrieved from http://www.census.gov/2010census/

U.S. Department of Education. (n.d.). Retrieved from http://www2.ed.gov/programs/innovative/index

_____. Office of Elementary and Secondary Education, Office of State Support. (2015). *Fundamental change: Innovation in America's schools under Race to the Top*. Washington, D.C. Retrieved from http://www2.ed.gov/programs/racetothetop/rttfinalrpt1115.pdf

_____. (2015). Awards – Race to the Top District (Rtt-D). Retrieved from http://www2.ed.gov/programs/racetothetop-district/awards.html

_____. (2014). *Competency-Based Learning or Personalized Learning*. Retrieved from http://ed.gov.

_____. (2015). *Empowering States to Transform*. Retrieved from https://www2.ed.gov/news/newsletters/edreview/2015/1113.html

_____. (2015). *Every Student Succeeds Act*. Retrieved from http://www.ed.gov/essa

_____. *Fundamental change: Innovation in America's schools under Race to the Top*. Retrieved from http://www2.ed.gov/programs/racetothetop/rttfinalrpt1115.pdf

_____. (2012). *Nine States and the District of Columbia Win Second Round Race to the Top Grants*. Retrieved from http://www2.ed.gov/news/press-releases

_____. (2014). *State Education Reforms*. Retrieved from www:ed.gov

_____. National Center for Education Statistics. (2011). *Digest of Education Statistics, 2010* (NCES 2011-015). Retrieved from http://www.ed.gov

U.S. Department of Labor. (2013). *Occupational employment statistics*. Retrieved from http://www.bls.gov/oes/#data

United Nations Educational, Scientific and Cultural Organization (UNESCO*). (2012). *Shaping the education of tomorrow: 2012 report on the UN decade of education for sustainable development*, *abridged*. Retrieved from http://unesdoc.unesco.org/images/0021/002166/216606e.pd

Vernez, G., Karam, R., Mariano, L., & DeMartini, C. (2006). *The no child left behind act of 2001*. Retrieved from www2.ed.gov/*NCLB*/overview/intro/execsumm.pdf

Vogler, K. (2002). the impact of high-stakes, state-mandated student performance assessment on teachers' instructional practices. *Education, 123*(1), 39

Wagner, T. (2008). *The global achievement gap*. New York: Basic

Willms, J.D. (2000). Student engagement at school: A sense of belonging and participation results from PISA. *OECD*. Retrieved from http://www.oecd.org/edu/school/programmeforinternationalstudentassessmentpisa-33689437.pdf

Worthen, M. & Pace, L. (2014). A K-12 federal policy framework for competency education: Building capacity for systems change. *CompetencyWorks Issue Brief, International Association for K-12 Online Learning*. Retrieved from www.competencyworks.org

Yin, R. (2009) *Case Study Research: Design and Methods*. Thousand Oaks: Sage

Yin 2014 is in the paper too as it2015 and 2002 get this straight

APPENDICES

APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL

MONTANA STATE UNIVERSITY Institutional Review Board Application for Review (revised 06/01/15)

****

THIS AREA IS FOR INSTITUTIONAL REVIEW BOARD USE ONLY. DO NOT WRITE IN THIS AREA

Application Number: Approval Date:

Disapproved: IRB Chair's Signature:
****

Date: October 7, 2015 I. Investigators and Associates (list all investigators involved; application will be filed under name of first

person listed)

NAME: Susan C. Sullivan, M.Ed. TITLE: Doctoral Candidate DEPT: Education PHONE #: 406-589-4117 COMPLETE ADDRESS: 1228 Cherry Drive Bozeman, MT 59715 E-MAIL ADDRESS: scsullivan100@gmail.com

DATE TRAINING COMPLETED: ___9/11/2013_____ *[Required training: CITI Training; see website for link]* SIGNATURE (PI or ADVISOR):

NAME: Jayne Downey, PhD TITLE: Associate Professor & Department Head DEPT: Education PHONE #: 994-7426 COMPLETE ADDRESS: 213 Reid Hall E-MAIL ADDRESS: jdowney@montana.edu

DATE TRAINING COMPLETED: _____2/29/12_____ *[Required training: CITI Training; see website for link]* **(repeat for additional investigators if needed; or delete extra if not necessary)**

Do you as PI, any family member or any of the involved researchers or their family members have consulting agreements, management responsibilities or substantial equity (greater than $10,000 in value or greater than 5% total equity) in the sponsor, subcontractor or in the technology, or serve on the Board of the Sponsor? _____ YES __X___ NO

If you answered Yes, you will need to contact Pamela Merrell, Assistant Legal Counsel-JD at 406-994-3480.

II. Title of Proposal: *[please try to keep title on front page; use smaller font and delete excess lines if necessary]* Student Perspectives: Successes and Challenges Realized in A Competency-Based Public High School

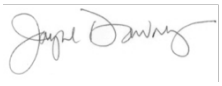
III. Beginning Date for Use of Human Subjects: November 15, 2015

IV. Type of Grant and/or Project (if applicable) N/A Research Grant: Contract: Training Grant: Classroom Experiments/Projects: Thesis Project: Other (Specify):

V. Name of Funding Agency to which Proposal is Being Submitted (if applicable): N/A

VI. Signatures Submitted by Investigator Typed Name: Susan C. Sullivan, M.Ed. Signature: Date: October 7, 2015

Full Committee Review □ □Expedited Review X



Faculty sponsor (for student) Typed Name: Dr. Jayne Downey Signature:

Date: October 7, 2015

VII. Summary of Activity. Provide answers to each section and add space as needed. Do not refer to an accompanying grant or contract proposal.

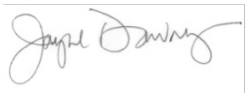
A. RATIONALE AND PURPOSE OF RESEARCH. (What question is being asked?)

In 2007, Lindsay Unified High School (Lindsay, CA) changed from a traditional curriculum model to a standards-driven, student-centered model referred to as competency-based education (CBE). Given the importance of high school completion to future outcomes for youth, it is imperative to understand youth perspectives regarding the changes to their curriculum. Therefore, prospective participants in this study will be 4-6 students and one administrator from Lindsay Unified High School, a public competency-based high school in Lindsay, CA)\. The research will be guided by the following questions.

Focusing on the case of a competency-based public high school located in the Western

United States: RQ1: Which aspects of CBE do students identify as contributing to students' perceived academic success? RQ2: Why have these identified aspects of CBE contributed to students' perceived academic success? RQ3: Which aspects of CBE could be improved in order to increase students' perceived academic success?

RQ4: Why would improving these identified aspects of CBE increase students' perceived success?



B. Procedures that will be performed with human subjects. Include details of painful or uncomfortable procedures, frequency of procedures, time involved, names of psychological tests, questionnaires, restrictions on usual life patterns, and follow up procedures. **If you are planning on posting flyers, posters, etc. anywhere on Campus, you must check with the building managers and/or departments located in MSU buildings and obtain their approval prior to the posting.**

Step 1: Administrator Interview Protocol –- approximately 30 minutes

1. Introduction of researcher; introduction to the study; consent form
2. Administrator Interview Questions
   In a number of places, the transition from a traditional curriculum to CBE has occured in stages. Please describe how the transition occurred here at Lindsay.
   Approximately what percentage of your class instructors are teaching 100% CBE?
   Please describe any changes in attendance and student behaviors since implementation of CBE at this site.
   What have you seen as the greatest success(es) with the implementation of CBE?
   What have you seen as the greatest challenge(es) with the implementation of CBE?
3. Nomination potential student participants to participate in the focus group and individual interviews – identifying youth who have struggled with CBE but are currently demonstrating academic success and have attended a minimum of two years in CBE;
4. Request space and time to be reserved for all participant interviews;
5. Schedule end-of-site-visit meeting.

RESEARCH PROCEDURES INVOLVED.

Provide a short description of sequence and methods of
Step 2: Contact nominated youth; describe study; collect parental consent
Step 3: Focus Group Interview Protocol – 4-6 youth; approximately 45 minutes

Introduction of researcher; introduction to the study; assent form
Focus Group Questions
Question 1 – Please describe the CBE here at Lindsay.
Question 2 – Please describe a typical school day here at Lindsay. Possible probes for Q1 & Q2:
Could you tell me more about this?
Could you give me an example?
What are you thinking about in particular?
Question 3 - Some CBE schools use matrices, binders, and examples of mastery to help guide students toward academic success. Please tell me about the tools you use here at Lindsay.
When and how do you use these tools/supports?
How were they introduced to you?
Which tools and supports help you the most and why?
Which tools and supports help you the least and why?
Conclude focus group interview by thanking the participants and scheduling individual interviews
Step 4: Individual Interview Protocol – 4 to 6 youth; approximately 30 minutes each

1. Introduction of researcher; researcher will thank the participant for their time
2. Individual Interview Questions

    Question 1 – How many years have you participated in competency-based education?
    Question 2 – How did you come to this learning model?
    Question 3 – What does success mean to you?
    Question 4 – How have you been successful with CBE?
    Question 5 - What have been your challenges with CBE?
    Question 6 - If you could influence the continued development of this program, what would you change?

Question 7 - If you could help other schools develop a program like this one, what advice would you offer?

Question 8 - Is there anything that you would like to add, perhaps something that occurred to you after the focus group meeting that you would like to include?

Possible probes for Q1- Q8: Could you tell me more about this? Could you give me an example? What are you thinking about in particular?

The researcher will conclude the interview by thanking the participant for their time and contribution to the study.

Step 5: Concluding the Site Visit

Exit meeting with the administrator

Researcher will thank the administrator for access and participation

Researcher will share anticipated timing for analysis, preliminary findings, and anticipated date for the defense of the dissertation

A follow-up thank you will be sent initially after the site visit and another will be sent following the completion of the study.

Completed copy of the study will be provided to the cooperating administrator.

C. DECEPTION-If any deception (withholding of complete information) is required for the validity of this activity, explain why this is necessary and attach debriefing statement. NONE.

D. SUBJECTS1. Approximate number and ages

2. How Many Subjects: 4-6 students; 1 administrator Age Range of Subjects: 16 – 19 years (Students), Unknown (Administrator) How Many Normal/Control: 0 Age Range of Normal/Control: 0

3. Criteria for selection: 1) Students who have experienced a minimum of two years enrolled in a competency-based public high school; 2) students who have previously struggled with academic success in high school but have demonstrated improvement in their academic outcomes in CBE; 3) administrator appointed by the superintendent to provide support for this study

4. Criteria for exclusion: None Source of Subjects (including patients): Students enrolled in a competency-based public high school, specifically Lindsay Unified, Lindsay, California.

5. Who will approach subjects and how? Explain steps taken to avoid coercion. Student participants will be nominated by the administrative staff at the school. Researcher will

speak with students individually to explain study and invite participation. The study is voluntary; no student will be required to participate and no punitive actions will be levied at students who choose not to participate.

6. Will subjects receive payments, service without charge, or extra course credit? Yes or XX - NO (If yes, what amount and how? Are there other ways to receive similar benefits?)

7. Location(s) where procedures will be carried out. Focus group and individual interviews will be conducted in a room on school premises as provided by the district, during school hours, and under supervision of appropriate staff member assigned to the researcher.

E. RISKS AND BENEFITS (ADVERSE EFFECTS)

Describe nature and amount of risk and/or adverse effects (including side effects), substantial stress, discomfort, or invasion of privacy involved. The risk and/or adverse effects will be minimal. Focus group and interview questions are non- invasive and students may decline to answer at any time. Some participants may experience initial discomfort when meeting the researcher due to assumed hierarchy of power between youth and adults.

1. Will this study preclude standard procedures (e.g., medical or psychological care, school attendance, etc.)? If yes, explain. NO

2. Describe the expected benefits for individual subjects and/or society. Results from this study will contribute to the growing body of literature concerning a national trend away from time-based, text-driven, public education. Perspectives from students will guide emerging competency-based (CBE) schools as well as advise continuous improvement of existing CBE schools.

F. ADVERSE EFFECTS

1. How will possible adverse effects be handled?

By investigator(s): Researcher will immediately refer student to the care and counsel of trained school personnel.

Referred by investigator(s) to appropriate care: On site trained school personnel will be available. Other (explain):

2. Are facilities/equipment adequate to handle possible adverse effects? XXX - YES or No (If no, explain.)

3. Describe arrangements for financial responsibility for any possible adverse effects.

MSU compensation (explain): Sponsoring agency insurance: Subject is responsible: Other (explain): In the event of adverse effects, the school will provide all necessary care and counsel for participants.

G. CONFIDENTIALITY OF RESEARCH DATA
1. Will data be coded? XXX Yes or No
2. Will master code be kept separate from data? XXX Yes or No
3. Will any other agency have access to identifiable data? Yes or XXX No (If yes, explain.)
4. How will documents, data be stored and protected? Locked file: Computer with restricted password: data will be stored on a personal computer that is password protected, back-up device will be stored in a locked cabinet, all field notes will be stored in a locked cabinet. Other (explain):

VIII. Check list to be completed by Investigator(s)
A. Will any group, agency, or organization be involved? XXX Yes or No (If yes, please confirm that appropriate permissions have been obtained.)
The Lindsay Unified Director of School and Community Development has provided written confirmation that the study has been approved and permission has been granted to collect data (email approval attached). The District has requested the right to review any publications prior to release and the Superintendent of Schools has requested a copy of the dissertation.
B. Will materials with potential radiation risk be used (e.g. x-rays, radioisotopes)? Yes or XXX No
1. Status of annual review by MSU Radiation Sources Committee (RSC). (If approved, attach one copy of approval notice.)
2. Title of application submitted to MSU RSC (if different).
C. Will human blood be utilized in your proposal? Yes or XXX No (If yes, please answer the following)
1. Will blood be drawn? Yes or No (If yes, who will draw the blood and how is the individual qualified to draw blood? What procedure will be utilized?)
Pending or Approved
2. Will the blood be tested for HIV? Yes or No
3. What disposition will be made of unused blood?
4. Has the MSU Occupational Health Officer been contacted? Yes or No
D. Will non-investigational drugs or other substances be used for purposes of the research? Yes or XXX No Name: Dose: Source: How Administered: Side effects:

E. Will any investigational new drug or other investigational substance be used? [If yes, provide information requested below and one copy of:
1) Available toxicity data;
2) Reports of animal studies;
3) Description of studies done in humans;
4) Concise review of the literature prepared by the investigator(s); and 5) the drug protocol.] Name: Dose: Source: How Administered: IND Number: Phase of Testing:
F. Will an investigational device be used? Yes or XXX No (If yes, provide name, source description of purpose, how used, and status with the U.S. Food and Drug Administration FDA). Include a statement as to whether or not device poses a significant risk. Attach any relevant material.)
G. Will academic records be used? Yes or XXX No
H. Will this research involve the use of:
Medical, psychiatric, and/or psychological records Yes or XXX No Health insurance records Yes or XXX No Any other records containing information regarding personal health and illness Yes or XXX No
If you answered "Yes" to any of the items under "H.", you must complete the HIPAA worksheet.
I. Will audio-visual or tape recordings or photographs be made? XXX Yes (audio recordings of interviews)
J. Will written consent form(s) be used? (Yes or No. If no, explain.) (Please use accepted format from our website. Be sure to indicate that participation is voluntary. Provide a stand-alone copy; do not include the form here.) YES
Yes or XXX No

APPENDIX B

SUBJECT CONSENT FORM

SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT MONTANA STATE UNIVERSITY

Student Perspectives: Successes and Challenges Realized in A Competency-Based Public High School

You are being invited to participate in a research study exploring students' perspectives on a competency-based curriculum delivered by a public high school. Your unique perspective of this program will inform researchers and educators working to meet the academic needs of all students as they develop and implement competency-based education programs. If you agree to participate, you will be asked to contribute to a focus group discussion and an individual interview, scheduled at your convenience. All findings will be shared with you.

It is important for you to know that your participation is confidential and voluntary and you may choose not to participate or to withdraw your consent at any time without penalty. The risks for participating in this study are minimal and participating or withdrawing from the study will not affect your grade or class standing in any way.

The data collected in this project will be kept confidential and secured in locked cabinets or in password protected computers. Only the investigator will have access to your information. Your privacy will be protected to the maximum extent allowable by law.

In research papers or other public presentations resulting from this study, your name will not be used and any identifying characteristics or personal information that could be used to identify you will be masked. It is highly unlikely that anyone would be able to identify you from any published report.

If you have any questions or concerns regarding your participation in this study you can contact the primary researcher: Susan Sullivan, 1228 Cherry Drive, Bozeman, MT 59715, 406-589-4117.

If you have questions or concerns regarding your rights as a study participant, or are dissatisfied at any time with any aspect of this study, you may contact – anonymously, if you wish – Institutional Review Board Chair, 960 Technology Blvd., Room 127, Bozeman, MT 59717. For information and assistance, call 406-994-6783.

AUTHORIZATION: I have read the above and understand the discomforts, inconvenience and risk of this study. I, _____*(name of parent or guardian)*, related to the subject as _____ _____ (*relationship*), agree to the participation of _____ (*name of subject*) in this research. I understand that the subject or I may later refuse participation in this research and that the subject, through his/her own action or mine, may withdraw from the research study at any time. I have received a copy of this consent form for my own records.

Parent or Guardian Signature: _____

Participant's Assent Signature: _____

Investigator: _____

Date: _____

APPENDIX C

INTERVIEW PROTOCOL

Step 1: Administrator Interview Protocol –- approximately 30 minutes

1. Introduction of researcher; introduction to the study; consent form; collect Assent and Consent Forms
2. Administrator Interview Questions

a. In a number of places, the transition from a traditional curriculum to CBE has occurred in stages. Please describe how the transition occurred here at Lindsay.
b. Approximately what percentage of your class instructors are teaching 100% CBE?
c. Please describe any changes in attendance and student behaviors since implementation of CBE at this site.
d. What have you seen as the greatest success(es) with the implementation of CBE?
e. What have you seen as the greatest challenge(es) with the implementation of CBE?

3. Request space and time to be reserved for all participant interviews;
4. Schedule end-of-site-visit meeting.

Step 2: Contact nominated youth; set focus group meeting

Step 3: Focus Group Interview Protocol – 4-6 youth; approximately 45 minutes

6. Introduction of researcher; introduction to the study; assent form
7. Focus Group Questions

Please describe the CBE here at Lindsay.
Question 2 – Please describe a typical school day here at Lindsay.
Possible probes for Q1 & Q2:

"Could you tell me more about this?
"Could you give me an example?
"What are you thinking about in particular?

Question 3 - Some CBE schools use matrices, binders, and examples of mastery to help guide students toward academic success. Please tell me about the tools you use here at Lindsay.
When and how do you use these tools/supports?
How were they introduced to you?
Which tools and supports help you the most and why?
Which tools and supports help you the least and why?

8. Conclude focus group interview by thanking the participants and scheduling individual interviews

Step 4: Individual Interview Protocol – 4 to 6 youth; approximately 30 minutes each

1. Introduction of researcher; researcher will thank the participant for their time
2. Individual Interview Questions
    a) Question 1 – How many years have you participated in competency-based education?
    b) Question 2 – How did you come to this learning model?
    c) Question 3 – What does success mean to you?
    d) Question 4 – How have you been successful with CBE?
    e) Question 5 - What have been your challenges with CBE?
    f) Question 6 - If you could influence the continued development of this program, what would you change?
    g) Question 7 - If you could help other schools develop a program like this one, what advice would you offer?
    h) Question 8 - Is there anything that you would like to add, perhaps something that occurred to you after the focus group meeting that you would like to include?

Possible probes for Q1- Q8:

"Could you tell me more about this?
"Could you give me an example?
"What are you thinking about in particular?

The researcher will conclude the interview by thanking the participant for their time and contribution to the study.

Step 5: Concluding the Site Visit

1. Exit meeting with the administrator
2. Researcher will thank the administrator for access and participation
3. Researcher will share anticipated timing for analysis, preliminary findings, and anticipated date for the defense of the dissertation
4. A follow-up thank you will be sent initially after the site visit and another will be sent following the completion of the study.
5. Completed copy of the study will be provided to the cooperating administrator.

APPENDIX D

CAPACITY MATRIX

Capacity Matrix

Name: _____ **Date Started:** _____ **Target Completion Date: 21 de sept. 2012**

National Standard 2.1: Students demonstrate an understanding of the relationship between the practices and perspectives of the culture studied

Learning Targets: Measurement Topic #3 **Discussing Family and Expressing Possession**	**1** **Emerging** I can show what I learned with help	**2** **Partially Proficient** I learned the simple parts	**3** **Proficient** I learned the simple and complex parts and can demonstrate them	**4** **Advanced** I can use what I learned in a new way. (e.g. Explain, teach or go beyond)	**What is my evidence?** *Separate evidence is required for each criteria* **1 piece of evidence for Level 2** **2 pieces of evidence for Level 3** **1 piece of evidence for Level 4**	Teacher Sign off/Date
Vocabulario: *Family members*: la abuela, el abuelo, los abuelos, la hermana, el hermano, los hermanos, la hija, el hijo, los hijos, la madre, el padre, los padres, el (la) primo(a), la tia, el tio, los tios *Descriptions*: joven, mayor, menor, viejo(a) *Expressing Possession*: De quien es..? el (la) … de…, Es de, mi, tu, su, nuestro(a), la edad, cuantos anos tiene, tiene…anos						
Numbers 11-100, el ano, la fecha, Cual es la fecha?, Es el…de…, el mes,						

enero, febrero, marzo, abril, mayo, junio julio, agosto, septiembre, octubre, noviembre, diciembre						
Simple details: Describe family [p. 76]						
El verbo "tener" [p. 78]						
Expressing "edad" (age) [p. 79]						
Expressing possession using *de* [p. 80]						
Use of possessive adjectives [p. 82]						
Giving dates [p. 85]						
Bullet 1: Understand and convey information about family						
Bullet 2: Understand and convey information about months and dates						
***Level 4*:** Begin to provide information using short sentences when writing: autobiographical, biographical, etc.						