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Competency-based Education Through the Lens of Personalized Learning in a Large Public High School

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COMPETENCY-BASED EDUCATION THROUGH THE LENS OF PERSONALIZED LEARNING IN A LARGE PUBLIC HIGH SCHOOL

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A THREE PART DISSERTATION:
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Abstract

When students end the chapter of high school, the question education must ask is, "*What does it take for a student to walk across the stage and receive their high school diploma?*" Is it a transcript full of passing letters ranging from *A–D* or is it a known belief that students do not have gaps in their knowledge and can apply their knowledge in real-world situations? This study identifies the problem and the basis of research in the program evaluation. It also focuses on identifying a policy that best supports competency-based education (CBE). Lastly, the study utilizes Wagner et al.'s (2006) change leadership model to assess the culture, context, conditions, and competencies of a large, suburban school district. It focuses on the ability to create and implement a CBE program. Semistructured interviews were conducted with teachers of the CBE program.

Results indicated the need for a structure for CBE to exist in schools. Strategies for implementation include:

- Developing an understanding of CBE and how it can impact student learning.
- Ensuring staff receives job-embedded professional development.
- Planning for a shift in policy to implement a standards-based approach to grading.
- Assessing facilities to foster adequate space to support a growing CBE program.
- Using metrics to assess the sustainability and success of the program for students.

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SECTION ONE: INTRODUCTION

Education in most of schools looks as it did in 2001, 1990, and even 1980. Although education has progressed with new information and curriculum, it still operates in a one-size-fits all model that does not meet the needs of students. A question to ask educators is, *What does it take for a student to walk across the stage and receive a handshake and a diploma?* Many will pause to think, but most will reply, *Passing classes and completing the requirements of high school*. What does it mean to pass a class? Anyone can make a subjective decision to put a letter grade on a piece of paper and call it passing. In the late nineteen and early twentieth centuries, students spent much of their time in direct contact with a teacher who taught a series of subjects for one hour a day. Day in and day out, the same process of educating students and designing instructional time fell within this model. For years, people seemed to want to make a change and reform education to do more, be better, and show innovation.

After 1983's, *A Nation at Risk*, study was released through a nationwide aggressive school reform movement, local and national school leaders tried to tackle the ongoing problem of society's tide of mediocrity that has been eroding the educational foundation. *Education reform* continues to be a common term; one that will never end. It seems to be a presidential duty to enact some form of educational reform. From No Child Left Behind and Race to the Top to Common Core Standards and the Every Student Succeeds Act, the educational landscape falls in line to continue the journey of finding a path to educational excellence. Most commonly, this path is the traditional approach to education. The traditional approach is described as 175 or more days of school where

students travel from class to class for six to eight, 45–50-minute class periods. Much of the instruction is led by the teacher while students sit at their desks with their textbooks and learn from a prescribed curriculum driven by timelines and pacing structures. Regardless of the students' needs and abilities, students are required to complete homework and meet certain benchmarks together and at the same time before the class, as a whole, can move forward. According to the Carnegie Foundation for the Advancement of Teaching, students should be able to know and meet the "standards" or "outcomes" by grade level (Silva, White, & Toch, 2015, p. 15).

As a former teacher and current principal, I have seen students who tend to be more successful when they have ownership of their own learning. In my time as an assistant principal, I had the fortunate opportunity to create an alternative program focused on recovery for students who are behind in the number of credits needed to graduate. I was inspired to find a solution to the chronic epidemic of students who would fail a semester or year of a class(es) and then take these classes for a second time to get the same result. I believed there had to be an alternative to disrupt the cycle of student's failing over and over. In an alternative setting, students focus on earning those credits by taking online classes that allow them to catch up at their own pace. If a student is motivated, they can complete classes in a couple of weeks rather than the length of a semester—which is typically 16 weeks of school. There are many students who continue to struggle in school because of set expectations. The understanding of the education system is to master a standard at a certain pace and a certain time in the year to stay on track and reach the end of the year. Many different ideas have been introduced into

different levels of the educational system in an attempt to increase performance and achievement on standardized tests.

One idea that has been attempted is competency-based education (CBE), which is an alternative to the traditional system of public education that operates under the constraints of time. Rather than operating in a time-based system, students receive their diploma for completing 4 years of high school. Competency-based education focuses on individualization and personalization for students. Semester- and yearlong classes are replaced with a list of competencies where students must demonstrate mastery in order to earn their diplomas.

In my leadership experiences, I sometimes think where I would be if I had the ability to challenge myself more than how I was challenged in school. The traditional setting put me on a prescribed path that required me to follow the curriculum. The inflexibility of the school day and the pacing of the curriculum overruled the need for me, as a student, to learn and be proficient in the skills needed to move to the next level of learning. Students need time for a sequence of learning that allows them to activate prior knowledge, explore new concepts, acquire new content, practice new skills, and apply this new learning to relevant tasks. They need to do so at their own pace with the appropriate support—not at the pace dictated by the curriculum guide (Colby, 2017). Competency-based education requires the educational system to create ecosystems of learning that brings students to competencies—however long it takes and wherever it needs to take place.

Proponents of the CBE concept admit there is not a single definition to define it (Colby, 2017). Competency-based education refers to a program where a student is

assessed by the mastery of their knowledge in a particular subject area rather than a set number of classes and credits that run parallel to the amount of seat time the student needs to receive.

Much of my ability as a student was based on the length of time I sat in a seat and repetitively completed a task until it was determined by the teacher I was prepared to move on to the next level. Most challenging about grasping this idea is that classrooms engaged in repetition until the teacher determines everyone is ready to move on takes much more time due to the number of students in one classroom.

Education has changed drastically since I was in school; now, there are more measures a student must meet before mastery in a skill or subject can be attained. Another change is the common core standards. According to the Common Core State Standards Initiative (n.d.), common core standards are a set of clear college- and career-ready standards for K–12 in English/Language Arts and Mathematics. These standards were designed to ensure that students graduating from high school were prepared to take credit-bearing introductory courses in 2- or 4-year college programs or prepared to enter the workforce. According to the understanding of these standards and my upbringing as a student, it is challenging to believe that seat time and paced learning will ultimately be a successful path in meeting the common core standards goals. Competency-based education takes the standards and groups them into competencies. Within these competencies, students are allowed to move throughout the standards at their own pace until mastery. Once achieving mastery, the student can move to the next competency. This is truly a form of personalized learning.

Reflecting on my leadership experiences and conversations with teachers, the personalization of learning seems to only be talked about in education when dealing within the realm of special education. This personalized learning is more focused on if the student with special education needs received an individualized education plan (IEP). While the model of traditional education created in the early 1800s still exists, schools attempt to disrupt the model by adapting to the current reality of students. Over time, many students have been lost in the system because they had no ownership of their learning and the prescribed system of traditional education did not fit their needs—this researcher struggled as well.

I began my schooling in a private school setting where desks were always in rows and teachers lectured through the content with very little collaboration. Assessments were multiple choice. The fear of not fully filling in the circles on a Scantron still haunts me to this day! I progressed through each grade with no challenge or motivation to stretch beyond where I was comfortable. Like many others, I became disengaged from the content and teacher-led instruction because there was no incentive for me to want to progress to the next level. Often, I would have to wait for classmates to reach a certain point before we were able to move on. Many times, I would race through the work in an attempt to finish first. Little thinking was needed to complete the work, which led to my dislike for reading and comprehension. Due to the lack of reading and engaging in the text, reading and comprehension became a weakness and to this day, I feel as though I am not drawn to reading. Because of my lack of comprehensions skills, which weren't developed while in school, I have no drive to pick up a book and read. Teachers created a limiting factor for most of my elementary and high school career. They did not provide a

challenge nor push me to go beyond my normal *A*s and *B*s. I was not on their radar as a student who needed help. Doing the day-to-day work and completing the assessments to receive an *A* or *B* was standard. Moving forward without the rest of the class was not a thought. A teacher would say, "Ok kids, take out your books, turn to page 25 and do the even numbers in class and the odd numbers for homework." Even though the teacher understood the answers for the odd numbers were in the back of the book, the assignment was still given. So to me, the homework was completed before I even started. Between 1992 (when I entered school) and 2005 (when I graduated high school), the words *personalized learning*, *differentiation*, and *student-centered* did not exist in my educational perspective.

Fox River School District 100 (a pseudonym used to preserve the privacy of the actual school studied) has been at the forefront of innovative practices for improving student learning for the past 6 years. The district is comprised of nine schools that feed into one high school: one early childhood school, five elementary schools, two middle schools, and one high school—all of which services about 9,500 students in three Illinois communities. I have had the fortunate opportunity to serve as principal of Fox River High School—a very progressive and innovative high school. Fox River School District 100 is one of the largest unit districts in the state to have a K–12 Chromebook 1:1 technology initiative and has served as a national leader in hosting site visits and collaboration with other districts to share innovative approaches to instruction in an online environment. According to a blog written by McGraw Hill (2017), the hallmark of personalized learning involves collaboration between student and teacher to determine the needs, plan, and design for learning.

Fox River School District 100 began its trek down the road of personalization of learning in the early- to mid-2000s, which began much conversation about what education looked like for students and offered significant growth of the district. Fox River School District 100 was known as the fastest growing public school system in the nation during the late 2000s. Fox River School District 100 took the leap in 2012 to adopt the technology initiative as a means of allowing teachers and students to engage in collaborative learning to increase the opportunities for students to engage in and extend their learning opportunities outside of the classroom. Students at this point in their educational career have the opportunity to connect to their education outside the classroom, as well as the ability to engage in a personalized learning approach as they utilize online learning management platforms such as Haiku (also known as Power School Learning) to extend the classroom via their school-issued Chromebooks.

To date, Fox River High School has been a national leader in the implementation of blended learning approaches to enhance instruction and foster innovative *anywhere/anytime* learning for students (see Table 1). Fox River High School offers extensive blended learning opportunities, with the majority of the student body completing at least one blended learning course prior to graduation. The blended learning approaches used at the high school are based on the research of the Christensen Institute (n.d.). As well, Fox River High School uses the Enriched Virtual Model, as defined by the Christensen Institute (n.d.). This model has served students well, as indicated by student achievement data in blended courses. Aggregate grades in blended courses typically are equal to or higher than grades in the companion traditional courses, based on

common assessments. Over the course of 5 years, Fox River High School has determined that the blended programming meets student needs well.

Table 1

Number of Students Enrolled in Blended Programming

Course	Average Blended Course Grades 9–12
Math	76.8%
English	78.1%
Science	81.2%
Social Studies	81.4%

In a quest to implement a blended learning approach at Fox River High School, Fox River School District 100 became a leader in the state in advocating for abandoning antiquated seat time requirements for student learning in favor of competency or a standards-based approach. For this reason, Fox River High School believes it is uniquely positioned to participate in the competency-based pilot program to build on its prior achievements and direction.

In addition, Fox River School District 100 is at the forefront of investigating personalized learning, which will be a natural extension of innovative practices from the blended learning beginnings. Based on research from the Institute for Personalized Learning, the Fox River District 100 has identified a direction for student learning that will move it toward personalizing learning for all students (Rickabaugh, 2016). Its personalized learning approach is based on the Institute for Personalized Learning's framework that identified several components that need to be developed in order to successfully personalize learning. One component is a focus on standards guiding

learning and assessment. This component aligns perfectly with the needs of the competency-based pilot program, as participation would allow the district to continue and expand the work in which it is committed.

Purpose

The purpose of this study involves beginning the implementation of a competency-based program in a school that is making a shift to the personalization of learning to better meet the needs of its students. Redesigning educational structures to meet the needs of students is the key focus. This study informs the education community and stakeholders of the importance of looking at a different method to meet student needs that does not fit in a traditional model. The question, *What does it take for a student to graduate from high school with a diploma?* has been an informing question for this study. This question opened the door for a holistic view of education from a traditional mindset—including structures, philosophies, grading practices, and how a fresh perspective on educating young people can help to answer this packed question.

Rationale

The concept of CBE has not been produced by this study. There have been schools across the nation engaged in restructuring the educational landscape for years. If we take a look at all of the education shifts that have been made, and federal, state, and local initiatives that have been investigated to improve education, CBE is just one. Competency-based education can truly help uncover the key to accessing student agency, ownership of learning, the depth of knowledge a student can reach, and a structure that allows students to connect to the world around them through their understanding of content.

Competency-based education does not seem like a far-off concept that is too left field and will not work. From being a student who was not challenged and reached the top being an *A* and *B* student, I did not have a drive to go deeper to understand the content. What was the point? There was no reason to spend extra time on trying to get a better *A*, when on the school paper and the report card, it was just that, an *A*; that was the focus. What I missed was finding the areas where I could continue learning because I stumbled on information that led to more and more because it sparked my interest. Traditional education seems to have a limiting factor and CBE, as explained in this study, lends itself to explaining a structure that works against the traditional concept. It is one worth understanding.

Goal

Competency-based education programs allow students the ability to move at their own pace through school by mastering standards at their own pace. The objective of the research needed for this program evaluation involves identifying key components that can be used to create a CBE program. The goal of this program evaluation involves understanding the effectiveness of personalized learning and the various components of CBE—such as standards-based grading and the personalized learning environment that CBE lends itself to. By understanding the elements of CBE and personalized learning, the overall elements will inform the successful implementation of a CBE program to be an exemplar for the State of Illinois' CBE pilot.

Research Questions

The following primary and secondary research questions guide this study and support the program evaluation:

Primary:

1. How do the practices required for the personalized learning inform a competency-based education model implemented in a suburban district?

Secondary:

2. How do teachers describe personalized learning in ways that assist in the preparation of students for college and career readiness through a competency-based method?
3. What role do technology, competency-based education, and blended learning play in building the necessary capacity required for successfully implementing personalized learning?
4. To what extent do competency-based programs affect traditional grading practices?

These questions inform this study and allow the opportunity to gather evidence to understand how school districts can support personalized learning. In addition, the questions help to narrow the scope of the study. Qualitative data is collected to support these questions.

Conclusion

The purpose of this program evaluation is to utilize the data gathered through data collection and literature reviews to connect effective structures for CBE programs to student achievement. Personalized learning opportunities in school have become a growing trend in recent years; breaking down the walls of traditional education models is

paramount in its connection to personalized learning and in creating a new landscape of education.

SECTION TWO: REVIEW OF LITERATURE

Introduction

America's educational system has been under the microscope for many years. Generally, it starts with Presidents of the United States who make education a pillar of their time in office. In 2002, George W. Bush presented the infamous, No Child Left Behind (NCLB) law that created a competitive environment for states. Under NCLB, schools were responsible for meeting adequate yearly progress (AYP) and holding schools and districts accountable for meeting goals to improve student achievement. Schools who did not meet its state's achievement goals for either all students or for a particular subgroup for two consecutive years were identified as not making AYP and subjected to a number of sanctions. Some of those sanctions included restructuring their school budgets; specifically, Title 1 money, to provide for student supports such as free tutoring. Additionally, if a school did not meet its targets, the school was subjected to closure.

This law created much competition among schools throughout the United States. The law was structured in a way where schools seemed to not have much say in how they operated and educated students; it seemed the major focus was on driving schools to leave no child behind—no matter the circumstances. This often meant having to teach to the test, to guarantee students pass to the next level. The law helped to define important content for students to know and not know. By shifting focus to specific subjects, schools place more emphasis on the test because schools would be focused on the testing data.

According to the Klein, 2015:

> The NCLB law has been heavily criticized for growing the federal footprint in K–12 education and for relying too heavily on standardized tests. This focus has narrowed the emphasis on math and reading test as well as the curriculum, forcing schools to spend less time on subjects that aren't explicitly tested, like social studies, foreign language and the arts. (para. 2)

Schools then turned to focusing on teaching to the test, which forced teachers to use practice state exams to prepare students to excel in standardized testing. At the end of the day, schools were failing and the achievement gap was growing rapidly. A number of researchers investigated the relationship between NCLB and student achievement and indicated there has been an upward trend in the percent of students meeting expectations on achievement test (Jacobson & Holian, 2010; Springer, 2008; Stullich, Eisner, & McCray, 2007).

To avoid being on the failing list, schools shifted their focus to teaching to the test and doing what was necessary to make sure students were prepared to be great test-takers. How did educators know students were actually learning and conceptualizing the information being taught? They did not. Is this just compliance to a federal mandate or is it a trend of what is expected when the federal government puts forth schoolwide initiatives? It also seems to be a trend that presidents select a program to help move education forward. This is acceptable as long as it is in the best interest of schools and students.

The idea of competitive schools does not stop with NCLB. Race to the Top was designed to encourage higher state standards, create new data systems, improve teacher

effectiveness, increase college readiness, stimulate charter-school expansion, and strengthen low-performing schools (University of Chicago Office of Communications, 2015). Schools were competing for funding given to them by the state. In 2009, schools and states competed for over $4 billion in allotted funds (Department of Education, 2009, p. 2, para. 2). Many critics argued that NCLB and Race to the Top have instilled a competitive atmosphere within education. The major concern is how the American education system has created incentives for teachers and schools but ignored helping and supporting student learning. Schools are competing for money and these programs have left school administrators, parents, policymakers, and teachers searching for other solutions to help the education problems happening today. Sullivan and Downey (2015) reported, "Arguably, the traditional system of teaching has worked well for many students over the last 100 years, but evidence indicates that the industrial era 'factory-based' system of education is failing to serve the needs of students in our 21st century society" p. 6.

A possible solution to the challenges the educational system faces today is CBE. Competency-based education represents a fundamental transformation to the educational system (Colby, 2017). In CBE, students are given a predetermined level of competency they are expected to achieve in specific topic areas. This means students must compete against a *standard* rather than a *classmate*.

Currently, the education system is designed to move efficiently within a structure and a constraint of time. Characteristics of the current traditional public school classroom include 50-minute classes, a 180-plus school day calendar year, and instructor-led and text-driven curriculum delivery that is time and credit-based—delivered to all students in

a class at the same time, regardless of individual ability (DeLorenzo, Battino, Schreiber, & Carrio, 2009; Jerald, 2009; Silva et al., 2015).

Time also controls the mapping of content and skills. By a specific time, students are expected to know a predetermined amount of information, and be tested on it at the end of that time period. Most likely, the student will move on, whether or not he or she has shown an understanding of the skill—especially if he or she were just lucky enough to pass the test. Grading systems are designed to show whether a student knows something on the day of a test; however, it fails to determine whether the student can actually put the knowledge to use (Colby, 2017). The education system should be able to provide students an environment that allows them to move at a negotiated pace to acquire the knowledge and skills necessary to understand the information, and prepare them for higher education or the workforce once graduating from high school.

Educators have identified that the problem of practice focuses on the students and their ability to learn content and develop skills that prepare them for life beyond high school. Educators need to ask themselves, *What does it take for students to walk across the stage and receive a diploma*? Is it a number of credits compiled over a 4-year period and as a result of a mixture of mandated classes by the state and electives chosen based on a student's interest? Many high school students want to know how the class work they are doing now will benefit them later. Oftentimes, educators hear from students, *Why do I need to know this?* Competency-based education can be more specifically described as a "standards-based, student-directed, individualized learning environment emphasizing increasingly real-life application" (DeLorenzo et al., 2009, p. 76). There is a need to create a new school infrastructure so students have the ability to apply their knowledge

and show mastery of content and skills that helps them to understand and know why the work is important and importantly, the value it holds for their future endeavors.

This literature review focuses on the following:

- Main themes
- Personalization of learning
- Concept and structure of traditional education, with a focus on time and place
- A paradigm shift of grading systems

These themes are the structure of the CBE concept.

Personalization of Learning

There seems to be a lack of definition for the personalization of learning, which has led some astute commentators to suggest that educators should just stop trying to develop one (Hernandez, 2016). Is personalized learning an opportunity for students to receive a daily schedule customized to meet their needs by focusing on their strengths and areas of growth? Is personalized learning an opportunity for students to work at their own pace to meet the learning targets they are working to understand while periodically checking their understanding through daily or weekly performance assessments? Some may say it is all of the above while others have crafted their own understanding of this ubiquitous and commonly used term.

According to Riley (2017), many definitions of personalized learning can be grouped into three common principles:

- Students having greater control over the content they learn.
- Students having greater control over the pace at which they learn.
- Use of technology to customize learning. (p. 69)

Personalized learning has taken off in the world of education from being an almost nonexistent concept to being one that is commonly used. Yet, there is no significant research supporting its success or ideas. The U.S. Department of Education invested more than $500 million in 21 school districts to support personalized learning models, yet to date, there is no rigorous research evaluating whether the investment improved student outcomes (Herold, 2016). Competency-based learning is a relatively new form of education that has been emerging for some time. There is not much data to pinpoint along the continuum of time, path, and pace where the most effective outcomes seem to happen.

Given Riley's (2017) three principles, students want an interactive, flexible, and engaging educational experience where they can explore topics of interest and understand why the work performed *inside* the classroom matters *outside* the classroom and how it applies to what they plan to do later. The goal of personalization is for students to have learning experiences—what they learn, how and when they learn, and where they learn are tailored to their individual developmental needs, skills, and interest (Benson, 2013). Although what, how, when, and where they learn might vary according to their needs, in a fully personalized system, students also develop deep connections to each other, the content, their teacher, and other adults (Gates Foundation, 2010).

Competency-based learning wants students to engage with the content in a way they understand and gain a deeper depth of knowledge rather than committing facts to memory and regurgitating those memorized facts on an assessment to get a letter grade and pass. Do educators really believe that if students commit the information to memory that they truly understand the content? Take history for example. There are many facts

such as dates, events, and people that can be committed to memory. If a student remembers this information for a test, most likely he or she will pass the class. However, what has been missed are the concepts and how those concepts support the facts and provide a framework to an understanding of the content. In today's society, the internet greatly negates memorization of facts. Simply Google the name, date, or event and get the information instantly.

Through the personalization of learning and a competency-based approach, students are allowed to explore what fascinates them through the utilization of resources such as the internet to gain an understanding of the content. Students can control their own pace and direction of their learning.

Personalization realizes the shift from teacher-centered to student-centered learning. Personalization brings the learner into day-to-day decisions about learning. Students have a voice in these decisions, in how they wish to learn something, and in the product of their learning and their agency—the level of control or autonomy they have in their learning (Colby, 2018, p. 97).

Moving from Traditional to Competency

Traditional education starts from the idea of total control of the teacher over students in the way a curricular content is taught (Novak, 2003, p. 128; Lulat, 2005, p. 179). Teachers are expected to cover a certain amount of content (in a specific time frame), allowing students to operate in a lock-step method of understanding and maintaining the knowledge presented to them. The repetition and memorization of concepts and written test focused on theory as instruments of evaluation of a course and its content (Novak, 2003, p. 125). In traditional teaching, the students' interests are not

always taken into account, and information is transmitted in the same way to everybody (de la Puente, Robles, Acuna, & Delgado, 2018; Zeichner, 2002, p. 60). The traditional Carnegie unit system focuses on credits and seat time. Educators are challenging the lock-step system that has the ability to control the learning of students; instead, they are transitioning from the lock-step concept to a CBE model, which doesn't allow for lock-step.

The movement toward CBE approaches to learning and instruction addresses a recommendation from Ryan and Cox (2017), who acknowledged that learning programs should factor in the different amounts of time students need to achieve proficiency and should consider basing student advancement on proficiency. The focus should not be on the amount of time students spend sitting in a desk within a classroom. The shift to competency-based learning also reflects that students are more engaged in their learning when granted greater flexibility in how they earn credit (United States Department of Education, 2011).

The question that guided this work is, *What does it take for a student to walk across the stage and get a diploma and handshake*. The lack of engagement and ownership in learning does not support this.

Changing the Grading: Mindset Shift

Most parents of school-aged children attended a school that used a traditional letter grading system that was simple and easy enough to understand. It has been so easy to understand it seems society has become comfortable, maybe too comfortable, with the existing grading system and change would be near impossible. A traditional student knows an *F* means you are not doing what is expected in the classroom, you are not

understanding the content being taught, or you may not be focusing on what is being taught. A student receiving an *A* would assume to be doing the complete opposite. What traditionalists fail to understand is the lack of clarity the letter grade provides. A letter provides no sense of constructive feedback to be able to make improvements or to gain an understanding if the student is learning the content. Class rank and grade point average (GPA) challenge the level of comfort traditionalists have about moving from traditional grades to standards-based grading. Parents and students would be required to spend more time to understand, as it relates to the standard. Looking at a piece of paper is not as easy with no letter grades. Teachers are just as equally affected by the ease of a traditional grading system.

There has been much movement in education to look at the effectiveness and viability of standards-based grading, as grading should be a measurement of academic achievement and performance by a student and not a single subjective view based on a multitude of different factors. Stephens (2010) and Marzano and Heflebower (2011) reinforced the notion that homework, behavior, attendance, notebooks, and group work should not be factored into a student's grade. By using a standards-based grading system, Iamarino (2014) argued that a teacher, "Is better able to determine a student's grade based on the single most important aspect of education—how well the student comprehends the content of the course" (p. 2). Vatterott (2015) cautioned that standards-based grading is more than a modification to the course grading scheme, and many teachers fail to modify all aspects of the learning process.

Teachers have to contend with many factors that play into a student's grades, such as the subjective view, the potential for extra credit, participation points, and completion

grades, to name a few. Students have become great at calculating their grades to know what is needed to pass. The desire to earn a high GPA by doing extra credit, taking easier classes to inflate the GPA, and leaving behind the value of learning, exist (Vatterott, 2015). The daunting task for teachers to change the instructional practices and the norm of traditional grading is overwhelming. The proliferation of standards that are introduced to education and what teachers are expected to complete in a single year for a single subject area is becoming more and more challenging.

Due to the wide spectrum of views on educational topics such as grading, teachers must shift their understanding of the benefit of standards-based grading and its positive impact on student motivation, student-agency, and the value of learning. The reality is that many educators grade against the standard already; they have the job of making sure they are covering the standard. So, to give students feedback that is not in the form of a letter grade should not be as challenging as one would think. The mindset shifts that must happen for CBE to happen are imperative to the success of standards-based grading.

Conclusion

Traditional education is defined as a teacher-centered delivery of instruction to classes of students who are the receivers of information. Traditional schools generally stress basic educational practices and expect mastery of academic learning in the core subjects of math, reading, writing, science, and social studies (Huson, 2017). It is commonly known that traditional schools and grading systems are currently not designed to meet the needs of all students. If they were, the nation (as a whole) would not have failing schools or failing students. By introducing personalized learning into a school system, a chance exists to create an environment of learning where all students have the

ability to master the content and skills in academic learning that prepares them for their future paths in life. The old grading systems that many are accustomed to do not dictate the understanding a student should possess about the content. Colby (2018) stated, "Grading systems are designed to tell us whether a student knows something on the day of a test, but fails to tell us whether the student can actually put the knowledge to use" (p. 1). Personalizing learning and allowing students to master skills and content is a transformational shift that needs to be made in the classroom. Changing the current way students are assessed on knowledge is also a transformational shift that answers the questions, IF students know how to apply the knowledge. If the learning and grading processes are transformed and students have more ownership in their learning, CBE will be the new standard for education.

SECTION THREE: METHODOLOGY

Research Design Overview

Michael Patton (2008), author of the book, *Utilization-Focused Evaluation*, discussed the difference between qualitative and quantitative research, referring to it as the methodological debate. Qualitative research design finds the meaning in word and stories. It also connects the casual dots through the unfolding patterns that emerge within and across many stories and case studies and produces themes (Patton, 2008). In looking at qualitative data and understanding how data gathering is done, hearing the stories and deciphering contextual evidence provides great insight to the work being done around CBE and personalized learning.

The qualitative data used in this research allows me to gain understanding to the underlying reasons and motivations behind *how* personalized learning and CBE models can increase students' engagement and prepare these students for college and careers post high school. To address the research questions guiding this inquiry, it is necessary to interview key stakeholders and observe classroom instruction of CBE and the blended model to best gain the data that will inform the concept of personalized learning.

The school district used for this research is in the process of implementing a CBE program. By using the semi-interviews and the focus groups consisting of teachers, students, and parents, I was able to focus the research questions and provide emergent themes and a contextual portrayal.

Participants

Patton (2008) defined program evaluation as, "the systematic collection of information about the activities, characteristics, and outcomes of programs to make judgments about the program, improve program effectiveness and/or inform a decision about future programming" (p. 39). Qualitative methods are often used in evaluations because they "Tell the program's story by capturing and communicating the participants' stories" (Patton, 2008, p. 39). This is a major reason why the participant selection process is so important during the study's design phase. Patton (2008) performed extensive research on purposeful sampling and the power it has in qualitative research. The logic and power of purposeful sampling lie in selecting information-rich cases for in-depth study. Information-rich cases allow for a great deal of learning about issues of central importance to the purpose of the research—thus the term, *purposeful sampling* (Patton, 2008, pp. 169–186).

Data Gathering Techniques

Patton (2008) defined program evaluation as the, "systematic collection of activities, characteristics and outcomes of programs to make judgements about the program, improve program effectiveness and/or inform decision about future programming," (p. 39). Qualitative methods are used in evaluations of programs because they "tell the story" and capture the stories of the participants through several means of data collection and analysis (Patton, 2003, p. 2).

Qualitative research aims to provide an explicit rendering of the structure, order, and broad patterns found among a group of participants (Patton, 1990). According to Merriam (2007), qualitative data research draws from the long tradition of anthropology,

sociology, and clinical psychology. It has archived high status of visibility within the social sciences—helping professions such as nursing, social work, counseling, family relations, health, mental health, community services, and even medicine. Qualitative research locates the researcher or observer "in the world" (Denzin & Lincoln, 2005, p. 3). It transforms the world into a series of representations by way of field notes, interviews, conversations, artifacts, and memos to oneself. "Qualitative research involves the studied use and collection of a variety of empirical materials—case study, personal experience, introspective, life story, interview, observational, historical, interactional and visual texts—that describe routine and problematic moments and meanings in individuals' lives" (Denzin & Lincoln, 1994, p. 2).

This study qualitatively looks at an educational model of learning and teaching and how students can advance their knowledge and skills by allowing them to own their own learning. The traditional model of learning created barriers of time, place, and the ability to dive deeper into concepts and ideas that challenge the way students think and learn.

Three major sources of data collection are available in qualitative research: Interviews, Observations, and Documents or Artifacts. The source that yields the most information is contingent on the research question itself and how the collected data sufficiently answers it (Merriam, 2007, p. 12). As the researcher, I used a combination of conducting interviews and collecting artifacts, when available. Researchers who collect more than one type of datum enhance the validity of findings (Merriam, 2007, p. 12).

Semistructured Interviews

Semistructured interviews consist of open-ended questions that allow for the discovery and elaboration of information pertinent to the study. Patton (2003) described semistructured interviews as a series of questions that might be formulated to generate accounts related to an interviewee's past, current, and future. Semistructured interviews allow the interviewer to ask follow-up questions based on the answers the participants provide; and participant's answers can unfold differently. The semistructured interview format is used most often as it provides participants with guidance on what they should be discussing. The flexible approach allows for more discovery and elaboration of information that helps gather rich and quality data.

Participants of these semistructured interviews acknowledged their understanding of each question. I provided full disclosure to participants, explaining how the questions may lead to follow-up questions based on the provided answers. A maximum of five main questions was asked during the interviews, and evidence-gathering through experiences and best practices in nature was used. The interviews were held in a location selected by each school leader and lasted between 30–45 minutes (see Appendix A).

Focus Groups

Similar to interviews, focus groups share common themes and ideas, are less structured, and allow for collecting more data from multiple participants at once. Focus group discussions are typically recorded, monitored, and guided by the interviewer. They are facilitated with the researcher being the active leader. Focus groups are challenging because it involves the individual having his or her own opinion and contributing to the conversation without being swayed by others' viewpoints.

The teachers' focus group was conducted similarly to the interviews—as their questions were semistructured too. This allowed for additional probing, which then allowed me the opportunity to gain a contextual understanding based on the shared experiences. Participants were asked about their opinions, beliefs, and perceptions of CBE and personalized learning.

The focus groups were held in a location selected by this researcher and the building leader and lasted between 45–60 minutes (see Appendix B).

Ethical Considerations

All study participants were informed of the purpose and responsibilities of the study. The semistructured interview questions and consent forms were provided to the participants. The consent form explained the purpose of the study—that participation was voluntary and there would be complete confidentiality. Participants were assured the study results would not be used to evaluate their performance. Completing the consent form and the interview questions represented the participant's acceptance to participate in the study.

The semistructured interviews were conducted after the acceptance of Institutional Review Board (IRB). During the fall semester, 10 or more teachers received a consent form to participate in the semistructured interviews. Not all teachers who received the consent form participated. Participants were reminded that if they had questions or concerns about any part of the process, they could call or email the researcher.

Pseudonyms were used for each participant to ensure their confidentiality. The interview audio recordings and transcripts were stored on an external hard drive on a personal computer. All audio recordings will be destroyed after 5 years.

Data Analysis Techniques

Qualitative data analysis is a process that lends itself to the understanding of the research objective and reveals patterns and themes in the collected data. Qualitative data analysis has two different approaches: deductive and inductive. Through this analysis and the researcher's understanding of the research, like responses emerged from the sample population. In this case, the researcher took a deductive approach. There are main differences between these two approaches. The deductive approach aims at testing theory while an inductive approach concerns itself with the generation of new theory emerging from the data. Through understanding the concepts and general premise of what this research is based on, the theory of new and emergent ideas and theories did not drive the research.

Once the data from the principal's interviews was collected, it was transcribed. To ensure the integrity of the principals' responses and views to the questions, pertinent portions of the interviews were reviewed to find emerging themes. The data coding exhibited the values and beliefs of the participants and responses gave depth to the research—as there has been much work already completed around CBE.

The data collected from the focus groups was then coded for emerging themes, which helped drive the research. The questions were open-ended and responses transcribed so the coding process could be authentic and accurate.

In qualitative research, Marshall and Rossman (1995; as cited in Desmond, 2010) defined data analysis as the process of bringing order, structure, and meaning to the mass of collected data. They contend that qualitative data analysis, "is a search for general statements about relationships among categories of data" (Desmond, 2010, p. 111).

According to Glesne and Peshkin (1992), data analysis in qualitative research involves organizing what the researcher has heard, seen, and read so he or she can make sense of what has been learned. Wolcott (1994) stated, "analysis addresses the identification of essential features and the systematic description of interrelationships (of the observations made by the researcher and/or reported to the researcher by others) among them, in short, how things work" (p. 12).

Conclusion

In using Wagner et al.'s (2006) 4 C's Change Model for organizational change, I identified the need for teachers to understand personalized learning and meet students where they were and not allow students to leave gaps in their knowledge. Through the understanding of CBE and how it is informed by personalized learning, teachers will discover a new and innovative way for their students to learn, as well as a new way of teaching.

The vision for solving this challenge involved focusing on adding in a new competency program that allows for the autonomy of students to choose a path in which they are most successful in learning. Students can then choose traditional, blended, or competency-based pathways to achieve their graduation requirements.

SECTION FOUR: RESULTS

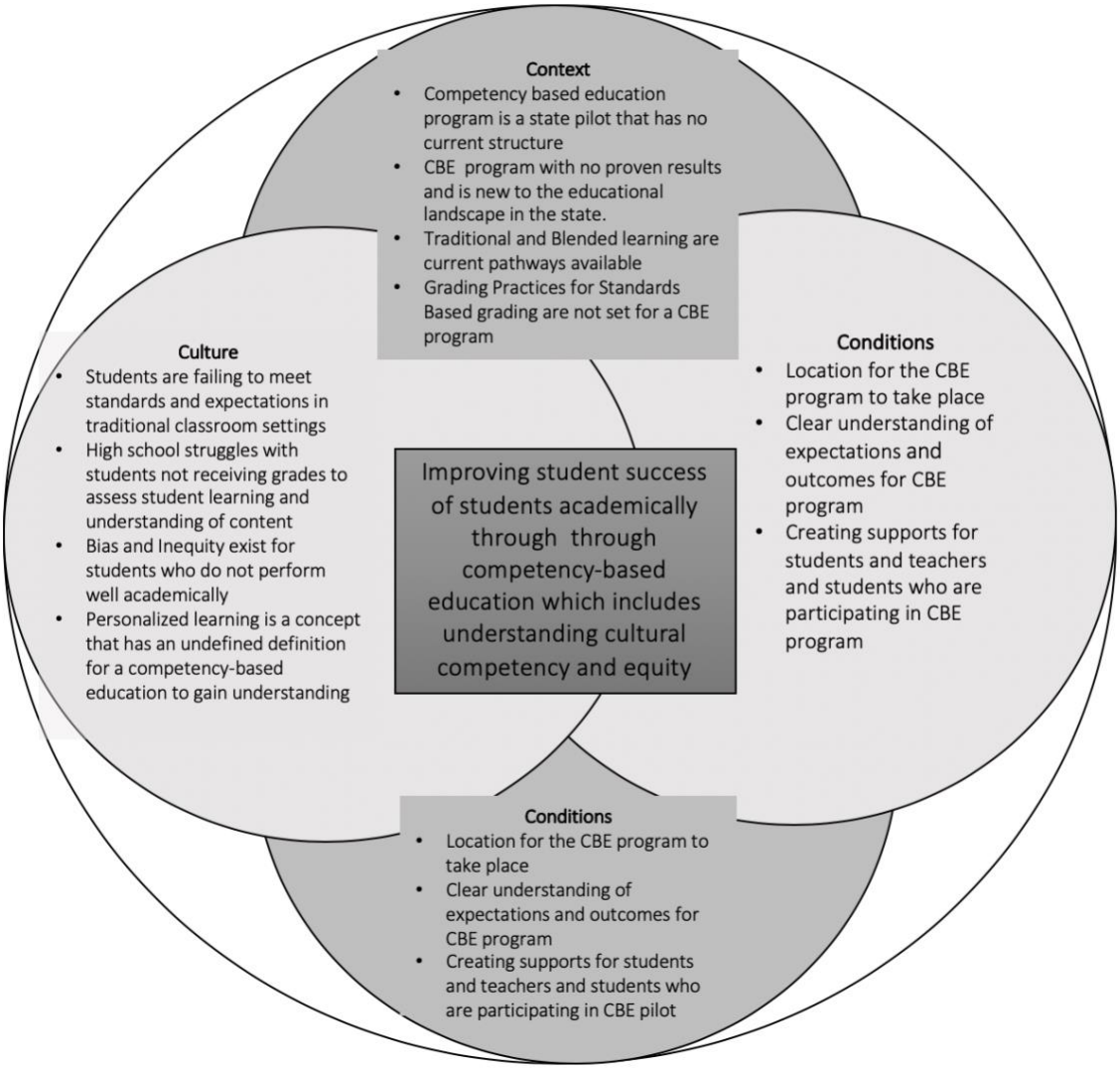
As Is

Change Leadership, a Practical Guide to Transforming Our Schools (Wagner et al., 2006) describes a framework called the 4 C's. This framework includes an understanding of the context, culture, conditions, and competencies of looking at a problem, and the ability to implement change. This framework is applied to the *As Is*, which is the current reality of the problem being examined. This same framework is applied to the *To Be*, which is what the perfect scenario would be if the problem were solved. In creating the As Is and To Be charts, the competency-based program at Fox River High School was examined to understand its current reality and to apply the framework, as stated by Wagner et al.

The 4 C's

At Fox River High School, personalized learning is not optimized for all students. The framework will go into greater detail of the context, culture, conditions, and competencies of the problem. By applying the 4 C's framework to the research data gathered, findings emerge with indications for what is needed to foster change in the competency-based program and educational structure currently present at Fox River High School. The current state is articulated in Figure 1 as the As Is Diagnostic Tool.

Figure 1. As Is Analysis for Competency-Based Education Program



Contexts

Fox River High School is a progressive school within the state of Illinois with a passion behind understanding students and creating an atmosphere for students to learn content in a form they best understand. Currently, Fox River High School uses two modalities of teaching and learning: blended learnings and traditional (lecture-based). Blended learning is an education program that combines online digital media with

traditional classroom methods. It requires the physical presence of both teacher and student with some elements of student control over time, place, path, or place. Taking a lecture-based approach to learning allows for a passive approach to learning. According to Van den Bergh, Ros, and Beijaard (2014), "Students passively receive information from their teacher" (p. 773). The teacher takes on the lecture-based approach by *talking at* the students rather than the students taking an active role in learning content through taking notes. Canaleta, Vernet, Vicent, and Montero (2014) stated, "The teacher is the person in charge of transferring knowledge, with the student taking a passive role, mostly limited to listening and taking notes" (p. 651).

Fox River High School started a blended learning program in 2011 with 100 students and three teachers. Since then, the program has grown significantly to over 1,600 students, which is well over half of the student population that took at least one blended class. Fox River High School offers 40 classes in the blended format across all subject areas—from foreign languages to math, to foods and physical education. Unlike many online or technology-aided programs in other school systems, Fox River High School did not purchase a prepackaged system or curriculum. The program was built using existing staff and guided by the needs of the students. However, there are always groups of students who fall into the category of unmotivated and disengaged from the classroom. The significant problem that blended learning and the atmosphere of traditional, lecture-based learning has provided is a platform for disengaged students to remain disconnected from those environments. Data from assessing the blended learning program provides an understanding of the success of blended learning, a form of personalized learning. The data shows the following:

- Students state that blended classes provide an environment that requires more self-accountability (91 percent).
- Students agree blended classes are beneficial to the student (85 percent).
- Students agree blended classes help them manage time and get more work done (80 percent).

While this represents great data about personalized learning, there are about 10–20 percent of students not represented in the data who see personalized learning as beneficial. Hence the reason Fox River High School decided to participate in the CBE pilot through the state of Illinois. In 2016, Illinois law adopted the Postsecondary and Workforce Readiness Act, which allowed the state to create programs supporting the success of students (after high school) by ensuring students were prepared with the critical skills needed to succeed in high-demand and growing occupational areas. High schools from 10 school districts participated in this pilot. For Fox River High School, the program represented an effort to meet the needs of students who found traditional or blended learning was not conducive to their success.

In the fall of the 2018–2019 school year, Fox River High School piloted, *Vanguard Vision*. This program enrolled 120, first-year students through a lottery process. Applications were sent to the families of 8th graders formally requesting admittance of their upcoming freshman student to the program. Tracking the successes of incoming freshmen students, year by year to graduation, allowed the opportunity to compare their successes by assessing their mastery of skills and college readiness to those students in the blended learning and traditional learning programs. Students enrolled to the program did not receive grades or a GPA as a metric of mastery. Instead,

students worked at a personalized pace to meet the Illinois state standards, which were broken into the eight competencies students are expected to master before moving to the next grade level.

Understanding the context of Fox River High School and the landscape for personalized learning provides support and influences the school community as it relates to culture, competencies, and conditions. Utilizing this 4 C's framework allows the audience to understand the four major components to understanding the concept of this program. The program is a pilot, as opposed to an established program; therefore, there are some components that simply do not exist, but the framework lends itself to creating a strong connection to the world of education.

Culture

"Culture is defined as the shared values, beliefs, assumptions, expectations, and behaviors related to students and learning, teacher and teaching, instructional leadership, and the quality of relationships within and beyond the school" (Wagner et al., 2006, p. 102). Fox River High School's culture focuses on preparing students through academic achievement and creating a community that inspires, challenges, and empowers students—always, the teachers at Fox River High School want students to succeed. The student population of 3,000 provides a challenge for teachers in making meaningful connections with the hopes of creating a spark that motivates students to be academically successful. The challenge comes when the willingness of the student to succeed is not evident. Some students slip through the cracks and either drop out of high school or do not reach their full potential because they are not at the forefront of being a model student. By creating the avenues of personalized learning, students can drive their

own learning at a comfortable pace. Personalized learning also allows students to build buy-in for their education because they have ownership of their learning. As well, teachers help to keep students focused on meeting goals.

Personalized learning has become a foundation for Fox River High School and is well accepted by the staff and students. However, because of implementing a pilot with no structure, a lack of understanding exists regarding program outcomes as outcomes are uncertain. When Fox River High School was accepted for this state pilot, it was explained to the school districts that there would be no funding; that each school within the pilot would proceed differently. Because Fox River High School had no set structure, teachers and administration directly responsible for the design and implementation of the CBE program had to develop and create their own structured program.

Fox River High School adopted its model from the New Hampshire school system, whom has engaged in CBE for years—launching its competency-based pilot programs in 1998, 20 years before the state of Illinois. In 2004, the state began redefining high school learning systems as all high schools were moving to CBE, as it was the only avenue of personalized learning to competencies. Fox River High School faced the challenge of varying demographics and structure of its program—as it related to the state of Illinois and expected outcomes. Fox River High School has a different landscape because this program was in addition to the modalities of learning currently available.

Parents.

Parents are an integral part of the pilot. To this end, parents were given the opportunity to receive program information (via a meeting at the school and online) and asked to take a chance on the new program because inevitably, it was going to help their student. Even so, parents did not have much understanding of the program to make the best-informed decision for their student's education. The school had 120 open and available spots for students—the school received 128 applications. The number of parent and student interest was below expectations, although there were no true baselines in which to compare since it was the first year. It was expected that once parents and students could see the benefits (and success) of the program, interest in enrollment would grow.

Another consideration for parents involved the lack of parent input—namely about assessment of the program. Parents serve as one of the best indicators regarding if their child is happy, learning, and understanding the key components to how their child learns best; therefore, their input is integral to the process.

Staff development.

To create a robust and rich program in moving students toward academic achievement through competencies, a great deal of professional development for staff involved in the program needed to take place.

Teachers and administrators informally shared the desire for students to engage in a personalized learning opportunity and it is imperative that the conditions are aligned to the purpose and mission of Vanguard Vision. In creating a program that requires a change in how education is executed, there must be belief in the program, not just buy-in.

Conditions

Conditions are defined as, "the external architecture surrounding student learning, the tangible arrangements of time, space, and resources" (Wagner et al., 2006, p. 101). In creating the pilot for the competency-based program, space was a challenge. Staff sought space for 120 freshmen students. In the future, the program needs to seek space to accommodate not only incoming freshmen but also current students moving to sophomores. Also, because of creating a specific program dedicated to catering to a specific group of students, space is a challenge when working with the remainder of the student body. Staff will have a hurdle to climb in making the schedule of classrooms work with the master schedule for traditional and blended learning.

The master schedule is always at the forefront of student scheduling. The program allows students to take electives and other special courses—such as physical education, art, and other non-required courses). The administration had to be mindful of providing enrolled students to the program the opportunity to participate in these classes by making these classes available throughout the day. Making arrangements for the accommodations will be essential to the program's success. Currently, a lack of clarity exists regarding the moving parts within the current conditions; however, staff is strong and competent in understanding how to make the conditions conducive to the program.

Competencies

Competencies are defined as the repertoire of skills and knowledge that influences student learning (Wagner et al., 2006, p. 99). Fox River High School's mission involves providing the best learning opportunities to meet students' needs. As the pilot begins, it is the staff's responsibility to be competent and develop skills in the pertinent areas. The

teachers must be able to develop the necessary relationships with the students, as there are reasons students are not challenged and some unmotivated. The teachers must also develop a level of competency in regard to understanding high school students. Many students were seeking a different way to learn rather than blended or traditional ways. There needs to be guidance and structures in place to help students find the best outlet of learning that meets their needs. With the changing demographics at Fox River High School, teachers must be able to break down the barriers of learning abilities and socioeconomic concerns and create a culture of equity and inclusion as students work in unfamiliar boundaries of their academic career while preparing themselves for postsecondary work.

Wagner et al. (2006) stated, "Competencies are most effectively built when professional development is focused, job-embedded, continuous, constructed and collaborative" (p. 99). The administration's role involves providing teachers with ongoing professional development throughout the process of building and creating this new program. There are competencies teachers can acquire along the way, as it is understood that during the planning stage, everything is not always thought of ahead of time. Teachers whom participated had to be trained on the state requirements of the program, as well as program implementation at Fox River High School. Teachers had the opportunity to meet with other schools and districts across the state to understand the pilot, but lack the knowledge of what the outcomes will be. Professional development opportunities need to be designed to encompass the elements of program evaluation and an understanding of how to teach kids through a different method of learning.

An evaluation method to assess this program is not yet in existence. Providing feedback is developed with consistent practice on the alignment of content, instructional delivery, and student outcomes. Just as teachers are responsible for students meeting the competencies and moving forward, they are also responsible for assessing whether what is being done is reasonable, logical, and best practices. Regarding the success of this program, a critical component, the administrative role, is only as strong as the staff members responsible for the students in the program.

Summary of Interview Findings

In analyzing the data from the teacher's semistructured interviews, three themes emerged:

- Educational landscape and the current way education is viewed and structured for students to gain knowledge and understanding of content.
- Personalized learning and mindset shifts needed to be made that allow for educational shifts to be identified and changed.
- Views of grading in a competency-based system.

These themes were from the vantage point of the teachers involved in organically building and growing the program in a school that allowed this type of educational structure, one which benefitted students and teachers.

Educational Landscape

With progressive schools who lead the way in innovation, one would think structures are in place to meet the needs of all students. There is much effort and despair between high- and low-achieving students—with many low-achieving students barely making it at all. Teachers in this culture are familiar with the traditional model of

education because it is structured in such a way where a teacher can cover all content in a methodical approach and reach the end of the year having covered the required concepts.

Levels of content were created to make sure that all English 1 classes, for example, were teaching the same concepts at the same time during the school year. For students behind in learning, teachers need to do what is necessary to make sure they are ready to take the test with the rest of the class. Whether students understood the content or not, they were responsible for knowing it come test time. Teacher 1 shared the following challenges that Fox River High School encountered in not meeting the needs of all students:

> I got into heated arguments with my colleagues because I was not following the lock-step model for my level, that was created for all our students to stay on the same page. It was kind of difficult for me to fit into a lock-step rhythm of how the traditional model of education is designed. It hindered my ability to change my pedagogical approach to teaching. An example I will share is my kids were not ready for a test one day and I said, 'You know what, we are going to push back the test.' Everyone in the level was supposed to give the test on the same day. My students were not ready. I wanted to understand what was going on and why they were not ready. So it was a pretty heated argument in that you know I had to test that next day and it was what it was and my kids failed then they failed. And so, I think one of the hardest hitting moments for me was that I could not adjust the testing schedule to best fit with what my kids needed and how they needed to learn. (Teacher 1)

The traditional model was not lending itself to teachers having the autonomy to adjust what they were doing in the classrooms so students could learn the content, and not just for performing well on the test. A student receiving a *D* on a test is passing, but students were not learning the information. Students generally progress through a system in which achieving a *D* is considered sufficient for a student to move to the next level of instruction or content. So, a blended learning model was started to offer students the flexibility to time and place to add to their learning—thereby creating a culture of voice and choice that lent itself to allowing students access to their teacher in a smaller class setting.

The blended learning model was quickly accepted by the school community and the number of students taking a blended class(es) took off quickly. Teacher 1 stated, "Blended provided students with different learning abilities to learn or choose the way they learn to best fit them. I think it's been crucial to the success of students to be honest." Blended learning has taken the traditional model and added more opportunity for students to have some control over the essential components of time, place, path, and/or pace. Christiansen Institute defines blended learning as a formal education program in which a student learns:

1. At least in part, through online learning, with some element of student control over time, place, path, and or pace.
2. At least in part, in a supervised brick-and-mortar location away from home.
3. The modalities along each student's learning path within a course or subject are connected to provide an integrated learning experience. (Horn, Staker, & Christensen, 2017)

Blended learning was not accepted by all at Fox River High School. For some, it created a culture that lacked relationship and connectivity to the classroom and the teacher. Teacher 2 stated,

> As innovative as I was, I wanted nothing to do with it (blended). I wanted to see my kids every day. I wanted to protect my relationship with my kids, and I didn't want to do something that I didn't understand. Any educator could stand by knowing that relationships with students is a key component of student success in the classroom.
>
> When you hand the responsibility [of students owning their own learning] back over to the child, is extremely beneficial. When you jump into big programs, we forget about those kids who have no idea what responsibility looks like in their lives. And that's where I saw kids failing and what did I do? I just brought them back in my classroom and they were successful. (Teacher 2)

Teacher 2 attributes much of the classroom work to the connection and relationships of students. Teacher 3 stated, "It's about them. It's the relationships you build with them." Understanding where students are and how they can increase academic achievement is a key component as to why relationships are important. Meeting students where they are involves a commitment that requires teachers to take a different approach to how they teach as well as reconfiguring the educational system, practices, pedagogy, and classroom design to effectively make meaningful change for students and their learning. The focus involves identifying all students (individually and students who are failing) in the traditional model of education and how well their needs were met. The As Is framework looks at the current status of what is and what exists. Identified is the need for

personalized learning for students and creating an educational landscape that lends itself to meeting the needs of each student. The goal is to determine how to impact student learning by giving students the autonomy of time, pace, path, and place.

Personalized Learning

The Aurora Institute surveys thousands of educators to gain understanding of topics of interest within the education field. Educators feedback informed a definition of personalized learning as follows: "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" (Slocum, 2016, para. 2).

A gap develops in the learning of the content and what the student is actually absorbing as understanding of the content without the personalization of learning. Teacher 1 described personalized learning as simply "being able to tailor instruction to one individual." The word, tailor, is critical to understanding students and how they learn. For an educator to think all students learn at the same pace would be a mistake. Some educators may categorize differentiation on the same level as personalization, but there is a difference between the two. Differentiation focuses on groups of students by ability and skill level. According to the Association for Supervision and Curriculum Development (n.d.-a), "Differentiated instruction is an approach to teaching in which educators actively plan for students' differences so that all students can best learn" (para. 1). Personalized education is more of a customization for the students. Through CBE, students will always be at different places and depths within their learning, and it is important to focus not on

groupings of students but rather, designing space and time to explore and comprehend the content while incorporating skill and ability in which the student is most successful.

Teacher 4 extended the thought of personalization further by saying, "We think when we say personalization of learning, the first thing people think about is the academic side of it, not the challenging circumstances of the kids and the culture of home life." Personalization is more than just the academics; it is focused on a holistic view of the student and lends itself to creating a learning environment that reaches the student on an individual level—with the focus of academics and the factors in which a student's life revolves around. Teacher 1 provided the following example:

> I love to be able to talk to kids about what they're interested in. So I will have kids just drawing random connections from a TV show that they have watched. The student says, 'I saw this [thing] on the Simpsons.' The teacher asks, does this relate to what we are talking about here? The student says, *Yes*, and the teacher ask, *Why*, and the student then goes on to explain their understanding of a concept and its relation to what they saw or heard through their favorite TV show. (Teacher 1)

This is personalization. It focuses on the need interest of the student and helps a student gain a connection and understanding to the content based on the ability to think about the content differently. Differentiation focuses on skill and the level of learning and does not take into account the specific interest of the student, whether it is an educational interest (content) or an interested unrelated to the content or education, such as a hobby or sport. Regardless of the interest, connections to the content can be made.

Grading Practices

The current traditional grading system has been around for a long time. Grading represents an essential process in all schools and at all levels. It is a means of assessing students and their ability to perform and show understanding of a concept, learning target, or completion of work. What does a letter grade really prove? Students, parents, and teachers need to receive an accurate understanding of what a student knows. This allows for the accurate accounting of growth and support the student received. The grading process is very subjective and focuses on many factors, such as completion, behavior, and compliance. In some cases, students take a class and can prove their understanding of the content, as well as show understanding of the academic material through assessments while at the same time, fail the class because they have not turned in homework, their attendance is poor, or they have a history of misbehavior in the class. Conversely, students can receive elevated grades as a result of extra credit assignments, turning in their homework on time, and participating in class—even though they cannot show mastery of the content on applicable assessments. The challenge involves the inability of knowing if a student is ready to move to the next level in his or her learning. To alleviate the subjective vantage point that teachers have about a student's performance, a standards-based approach to grading and a competency format can be explored.

Moving from a traditional setting to a competency-based system provides some mindset shifts that can affect grading. Teacher 3 stated, "Competency-based learning is different from traditional when it comes to grading. Grading is truly personalized." Students have the ability to move at a negotiated pace and unlock checkpoints along the

way. Students *do not* have the ability to fail because of not knowing the information—they are assessed by their understanding of the content. Table 2 shows a proficiency scale that stipulates certain criteria that can be used to assess how a student performs.

Table 2

Proficiency Scale for Student Assessment

Exemplary ("E")	Competent ("C")	Satisfactory ("S")	Basic ("B")	Insufficient Evidence ("IE")
Student demonstrates advanced understanding, with extensive application or connections	Student applies standard/learning target as defined	Student displays foundational learning for the standard/learning target(s)	Student demonstrates a minimal understanding, has significant gaps or inconsistently shows understanding	No evidence of understanding provided

This proficiency scale was created for students to understand how they will be assessed. All performance tasks and work the student completes is measured against this. Many may equate this graphic to an *A, B, C, D, F* model, but instead, students receive a score based on their level of proficiency for learning targets and competencies. Teacher 2 stated the following:

> For me it was trying to build a system that would comply with nongrading. So looking at grading, I know students are understanding the content because they have to look at the feedback that is given to them and make corrections. They can no longer look at the letter grade and settle nor can they be hungry for points in order to pass the class. Students actually have to work and show they understand the content. (Teacher 2)

Creating a system that focuses on students' abilities to understand the content is key in a competency-based program. Teacher 1 stated:

> I mean, a kid is looking for an *A* and they will only work until they get that *A* and then sit back and consider the work done. That is not the case here. Students can reach an exemplary level that goes beyond just completing what is in front of them. (Teacher 1)

Students in a competency-based model with standard-based grading can go beyond what is expected to receive an *A.* For a student to reach an *E* (Exemplary), he or she must demonstrate their application of knowledge and learned concepts.

Interpretation

According to Patton (2008), "Interpretation goes beyond the data to add context, determine meaning, and tease out the substantive significance" (p. 478). There are many components to developing a CBE program. The complexities of developing challenging and rigorous curriculum that allows a student to move along the proficiency scale outlined in Table 2 is very important. Data suggests that allowing students to be assessed in a subjective way does not provide a clear understanding of what the student knows and what the student can master during the application of knowledge.

The goal of CBE is not to create mediocracy in students but to offer them a way to master the skills with no gaps in their knowledge. The program has the ability to create different competencies for high-achieving students to be more rigorous, which allows teachers to push understanding to deeper levels. The proficiency scale allows students to not only reach an attempted goal but to also use their knowledge to do the best they can because it is their drive. Students are no longer working to achieve a letter grade that does

not define their completed work. Instead, they internalize the completed work and apply the knowledge in a way that makes sense to them and fills in their levels of understanding.

Teachers who teach in this program do it by choice. When faced with learning a new way to teach and grade, teachers made a connection and found a new way to teach. Teacher 4 stated the following:

> I have been a traditional teacher for all of my career and I know that I have taught in a competency model. I would never go back to teaching in a traditional way. I can see and feel the reward of what I am doing when my kids have reached a level of proficiency. I am confident and know there are not gaps in their knowledge and they truly understand the work. (Teacher 4)

The upcoming quote is a testament to the work that has been completed through a competency-based approach. As Teacher 4 stated:

> My students always make the argument that they don't see the purpose in learning the content. They always want me to answer the question, 'Why am I learning this?' I then go on to tell them that it is going to prepare them for the next level.' So, what are we doing, preparing students to level-up to say they have completed a progression of courses and coursework? (Teacher 4)

Teacher 3 stated:

> It is one of the few places in our society where we say 'Hey, all of this is important but yeah, it's okay if you don't learn it, we will just send you on, just as long as you complete the work and get a decent grade. In competency, we just don't do that. (Teacher 3)

Education continues to recreate the factory model: A student enters the classroom when the bell rings, takes in all the knowledge he or she can, then leaves when the bell rings. Students do this day in and day out from kindergarten to 12th grade. For 13 years, students move through this system. As long as they maintain an average performance, the system moves them to the next level. Competency-based learning can be described as, "a standards-based, student-directed, individualized, and data-based learning environment emphasizing increasingly real-life application" (DeLorenzo et al., 2009, p. 76). Students who are reaching the exemplary level are able to master the skills associated with the content, extend past what is currently in front of them, and apply their skills and knowledge to real-world issues and situations. This is how educators can connect youth to society and help them understand the work around them and not just by learning content.

A common theme that emerged from the data was the drive to move away from the traditional education system. For a teacher to move at a comfortable pace for them, they must understand grading, the personalization of learning, creating competencies and proficiency scales. Each educator interviewed believed that all students can learn; however, for various reasons, just not all at the same pace. Teacher 1 stated, "Some students may achieve a high level of proficiency in one unit and may struggle and need more time in another."

Judgments

One of the challenges of CBE is in creating and developing a program in a system that is very traditional, in nature. Traditional in the physical sense and in the mentality of the individuals working to create and build the program. Through the investigation of

personalization of learning, there is a philosophical mindset shift needed in order to create a program of personalization before an understanding of CBE can happen. Teacher 2 stated:

> Competency-based education, I thought this is perfect. As a traditional teacher, you know all the rules of losing points for students turning in late papers and getting half credit on things. I had a lot of seniors that were point-hungry and wanted that 97 versus the 96-1/2 because the points could change their GPA. Points did not tell me they were learning the content. (Teacher 2)

Creating this program through the data collected and challenging students through using a different grading system and approach to learning seemed to be the only thing to change the mindset of students. Students in traditional classes were seen as equal—same assignment, same time frame to take an assessment, and moving at the same pace throughout the units.

Teachers seem to understand assessment in a traditional way that allows them to think of traditional ways to assess students' knowledge of the content. These traditional ways of assessment do not always lend themselves to understanding the knowledge that will prepare students for life after high school. Educators need to utilize assessments to prepare students for the complex skills they need for whatever path they decide to travel after high school. "To any globally minded teachers, it quickly becomes obvious that traditional assessment practices—both classroom-based and large-scale measures—are inadequate to support the complex mix of knowledge, skills, and dispositions that comprise global competence" (Asia Society, 2020, para. 7). As educators prepare students for life after high school, they need to prepare them to understand the world

around them and to know that once graduating, there will be no knowledge gaps regarding the content they have learned. “Schools that are committed to it as a goal for all students quickly realize that they must leverage a variety of learning experiences, in and out of school, to ensure that students are ready for the world” (Asia Society, 2020, para. 7).

In building and creating this program, teachers were challenged with the task of developing competencies and extended learning opportunities stemming beyond the classroom—which accomplishes the goal of ensuring students are prepared for the real world. The real world does not measure competence by points on an assessment; the real world measures competence through application and what the student can show.

The results of this study provide insight as to what personalization of learning can lend itself to for students preparing for college and postsecondary education. Regarding personalization of learning and CBE, by understanding the study’s results and focus, the recommendations for change to the traditional system can inform the actions needed to ensure that a student system of learning is created to meet students’ needs where they are. Personalization is not differentiation, but a focus on allowing a student to learn and be assessed on what they know and how they can apply what they know. This gives students access to own their own learning.

Recommendations

For CBE to take place in a traditional school setting, the individuals developing the program must focus on how to change the traditional mindset. At Fox River High School, there are two current pathways: traditional and blended. The traditional and blended approaches to learning are ultimately the same way of learning. Blended learning

focuses on time and place while students still spend time in a traditional classroom setting. Competency-based education takes it a few steps further by completing the same content with a personalized approach, which allows students to move at a pace they are able to learn without having knowledge gaps because of moving forward as a class. By creating this track of learning, in addition to what currently exists (traditional and blended), Fox River High School students will have the ability to choose the path best for them.

Teachers choosing to teach in a competency format must receive high levels of professional development in understanding personalized learning, building competencies, performance tasks (to assess student achievement of the competencies), as well as standards-based grading that allows teachers to assess students on a proficiency scale. By creating a system that dives deep into structures and allows for high levels of student achievement, learners can reach high levels of understanding of the content and potentially be farther along in understanding the content more than a learner who just engaged in traditional education. The greatest level of focus on a competency-based system is in allowing students to apply knowledge through performance tasks.

According to the Educational Testing Service (ETS), performance assessments are tests where, ". . . the test taker actually demonstrates the skills the test is intended to measure by doing real-world tasks that require those skills, rather than by answering questions asking how to do them" (n.d., performance assessment definition). The key focus of the definition is real-world tasks. In connection with this study's initial focus, CBE exposes students to this early on, while preparing them for college where they will

have many real-world experiences. For students to show a level of mastery of the content to apply their knowledge, they must know the content.

Competency-based programs take time to build and create. Creating a pilot program allows time for trial and error. No program is perfect from concept to implementation. By allowing for the development of competencies, performance tasks, and structures that support the overall understanding and concept of the program, chances of success are greater. This study lends itself to implications that allow for further research; it focuses on the concept of implementing a competency-based program in a traditional high school as well as the personalization of student learning and how creating structures can lend itself to supporting the best way to reach all students on an individual level.

Implications for further study involves the success of students and their achievement compared to students who do not take the competency-based approach to learning but instead, a traditional or blended approach. Table 3 shows the relationship between the As Is and the To Be frameworks, along with the strategies and actions to create the bridge between the two.

Table 3

Strategies and Actions

4 C's	As Is	Strategy (the What)	Action (the How)	To Be

CONTEXTS	• Two Learning Pathways:
	  ○ Traditional
	  ○ Blended
	• -115 students in the pilot.
		• 4-year model of CBE.	• Designing and forecasting the program through a meeting structure for R&D.	• Three Learning Pathways
				  ○ Traditional
				  ○ Blended
				  ○ Competency-based (full scale across departments)
				• Allow students to participate in the specialized academies that are in place.

CULTURE	• Personalized Learning Framework in place. • Change is a constant. • Mindset of instructional practice and strategies is limited to CBE.	• Develop coaching around making a shift to competencies vs traditional. • Providing rich professional development to help staff with the mind shift.	• Seek professional development specific to understanding CBE.	• Competency-based education culture that incorporates blended learning model. • Seminar-based instruction.

COMPETENCIES	• Four teachers who are developing competencies and the standards that go along with this competency. • Rebuilding curriculum for each course to ensure all activities and assessments are helping students get to and demonstrate mastery of the competencies. • Students lack understanding of purpose and reason.	• Building content under each of the competencies. • Professional development around unpacking standards to fit in competencies. • Understanding the process of how the core teachers developed the process.	• Allotting time for teachers to develop competencies (PLC). • Core teachers providing insight at different steps to developing competencies (Group/Department). • Reteach students the purpose and reason they are in school and the habits needed to demonstrate mastery of the standards.	• Departments are trained to unpack standards and develop competencies. • Guidance for students on how to connect this learning to the skills they need to be successful with regarding where they want to go in the future.

CONDITIONS	• LMS system supporting the structure of how mastery is reported. • Space for growth of the program.			• O&M commitment to helping provide the learning environment for CBE to be successful. • Space for growth of the program.

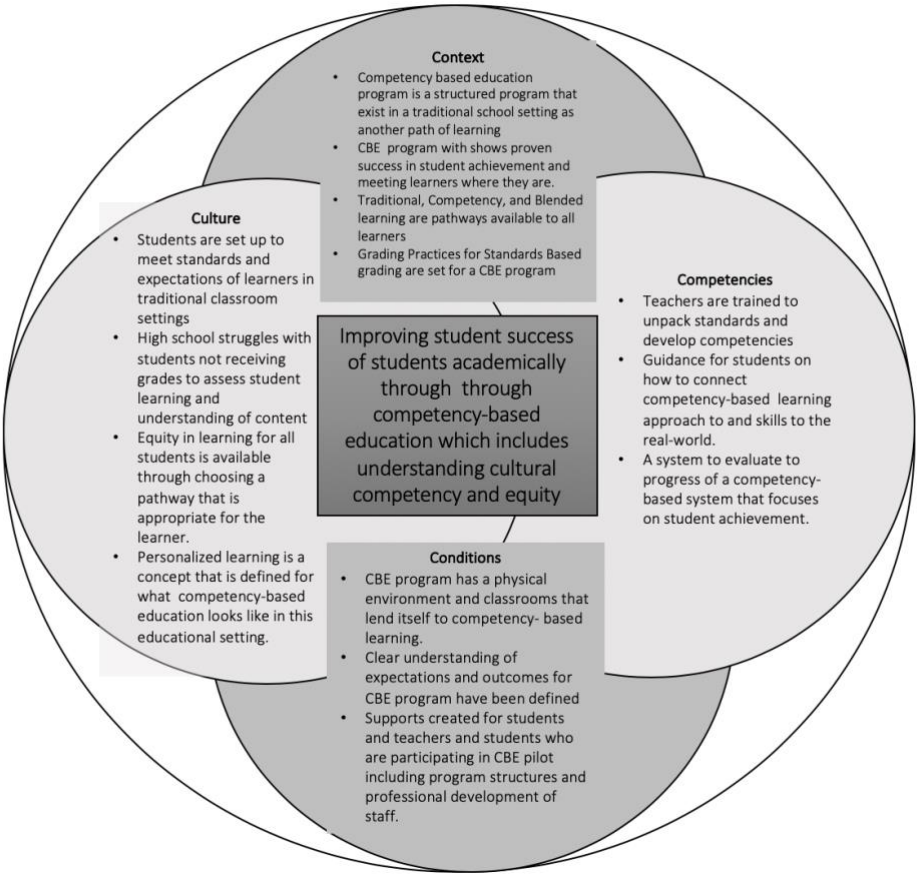
There is much to be said about the similarities and differences of the various programs in this study. The As Is framework lends itself to seeing the current reality as it stands now and the changes and considerations needed to live in a To Be state; which is discussed in the next section.

SECTION FIVE: TO BE FRAMEWORK

Introduction

The To Be framework includes an understanding of the context, culture, conditions, and competencies of looking at a problem and being able to see a finished product or concepts that turn the problem into the best solution to the problem. The To Be framework of the CBE program allows understanding of what is necessary for the program to be successful after understanding the current reality—also known as the As Is (see Figure 2).

Figure 2. To Be Analysis for Competency-Based Education Program



Context

Every student needs the opportunity to be successful. Personalized learning creates the chance for students to take their learning into their own hands and be accountable for meeting standards. Whether it is traditional, blended, or competency-based, students have the opportunity to choose a track that best benefits their learning goals.

Fox River High School has the opportunity to create a robust education track for students who perform above grade level and have become bored or disengaged in the classroom to students who have become disengaged due to lack of motivation or willingness to be in school. The ultimate goal of this program involves increasing the opportunity for student success through multiple pathways to graduation. New Hampshire's Department of Education has been the model for CBE since 2004. States are just now finding out about the benefits of the program, and New Hampshire has been very successful. Fox River High School is designing and implementing a program that has a structure modeled after New Hampshire. Fox River High School will have goals and objectives that align with the school's mission and vision, as well as outcomes that support growth in the school's graduation rate. Students will have the ability to off-ramp to the other two modalities of learning (traditional and blended) if they determine this learning pathway is not for them. The design of the competency-based program will include the following, but is not limited to:

- Allowing students to show mastery of skills and abilities and demonstrate additional competencies that are aligned with elective courses, career and

technical education programming already available within the school, and extended learning opportunities that support student growth and success.

- Aligning CBE programming with current academic programming so students and their teachers can determine where the student is most successful.
- An evaluation tool that assesses the development and progress of the program to determine what the school and district need to do to increase the success of the program.
- Professional development for staff that will increase their skills, abilities, awareness, and understanding of personalized learning, which can improve the educational culture of the school, district, and state.

By incorporating these ideas into the competency-based program, there will be significant changes to the culture of the school community and staff because the understanding and support of the program will grow. Teachers will understand the program and how it supports the educational landscape of Fox River High School.

Culture

Students help to define the culture of their learning environment; they have an integral part in determining their path to graduation. Students have the opportunity to choose from avenues of learning that promote academic success and cater to their learning needs. Students entering the CBE program will remain a cohort throughout the program. Students in this first year will only be able to come into the program as freshmen and stay in the program each year as they move to the next grade level. Students will have the opportunity to move out of the program if they feel the program is not meeting their educational needs. Teachers understand that students enter their classes

mid-year because of the opportunity to off-ramp students to a different learning track. The program provides teacher-stability to teach their content because they understand the curricular structure of the program.

Professional development for teachers in the program provides the opportunity to develop the program and gain ideas from other programs across the nation. School districts implement the program differently; and through professional development and studying other programs, best practices can be utilized. Teachers use a teaming model to understand and create an alignment of how each content area is unpacking the standards and aligning them under the eight competencies identified within the program. Unpacking standards are critical to the success of the program because students and parents will need clarity on how they will be assessed on the competencies. The assessment will be in the same realm for consistency.

All entities involved in the implementation and design of this program should meet regularly to discuss the positive results and areas for change. It is important to determine what major changes are needed for program success. Staff is provided the opportunity to assess the issues and find meaningful solutions.

Conditions

Developing a program through a pilot allows for trial and error. For the program to be successful, conditions for learning must be in place. Some conditions exist that can enhance program success and maximize student potential. These conditions can be made from the spectrum of federal and state to classroom teachers. All are integral parts to creating a successful program.

Federal and state policymakers can provide supportive policy environments that support the work the school and district are doing regarding CBE. As it stands, the state issued a pilot program that includes much discussion about how to mainstream the program into schools across the state. Based on the discussion, policymakers will allow schools the autonomy to create and personalize the programs to the demographics of the students. Without autonomy, creating blanket reform will not meet the needs of the school and district and will not meet the needs of the students; it will tie the hands of the schools and teachers in allowing the student the opportunity to engage in ownership of their learning.

From the district level, several key factors will allow for a successful program:

- The curriculum is aligned with the district's mission and vision for teaching and learning. The curriculum is also assessed regularly and adapted, to accommodate the students who may move out of the program back to the other two modalities of learning (traditional or blended).
- Instructional practices are in line to develop flexible and learner-centered curriculum. Instruction will be relevant and rigorous and meet students' needs and interest. An ideal framework would be less teacher-led and more student-led.
- A comprehensive assessment system that assesses all aspects of the program, such as but not limited to the following:
    - Student outcomes
    - Evaluation of teachers

    - Curriculum
    - Student assessment measures
- The school has an environment for learning that is conducive to collaboration and student instruction, and supports high expectations while fostering a culture of respect, trust, equity, and inclusiveness. The space allocated for the program lends itself to individual student work time, collaborative space, and presentation time. Space is adequate to meet the students' and program needs.
- Students receive supports to meet social and emotional needs on a regular and weekly basis. Students also receive academic supports on regular biweekly cycles that provide feedback and an overall evaluation of the students' performance and target goals.
- Any professional development opportunities for teachers be job-embedded, which align with the district's mission and vision. Professional development provides a time for collaboration and continuous improvement.
- Teachers have the opportunity for leadership development where they can engage in the opportunity to participate in strategic planning and evaluation, participate in the visioning process, and obtain curriculum review of the program. Teachers gain buy-in and ownership of the program through leadership opportunities.
- Partnerships and community outreach with business and higher education constituents. Partnerships allow teachers and the school the opportunity

to link with the agencies in which the CBE program is preparing students to engage. By businesses linking with the school district and the school itself, the chance to develop a pipeline for economic and workforce development for the students can be achieved.

These elements are ideal conditions and necessary for a comprehensive program that lends itself to personalized learning, and brings CBE to another modality of learning.

Competencies

Developing a program based on an undefined pilot takes time and understanding of the concept. In this case, professional development for teachers is front-loaded to allow time to build a competent mindset around the concept of CBE. Wagner et al. (2006) stated, "Most efforts to improve education has at its core professional development as a way to build competency" (p. 99). Teachers are new to this program, just as students are. Teachers are the vehicles of this program and drives engagement for students and their families. Parents rely on teachers to help them understand the processes and procedures of the program and the educational changes and nontraditional way students receive grades. This change plan provides teachers the opportunity to train new teachers as the program grows, adding more students at the freshmen level while moving the current students to the sophomore level.

Through consistent and meaningful professional development, teachers will have a structure to train new teachers and update the program based on the changes the school may request of the school. Just as teachers have continuous professional development, students will have individual portfolios following them throughout the program to track the progresses of the competencies and used as part of the capstone for the completion of

the program. Students and teachers understand the assessment measurements used to gauge student achievement and evaluate the program.

SECTION SIX: STRATEGIES AND ACTIONS

Introduction

Several strategies exist to develop and create a program that supports student-learners and teachers who support students and program development. The strategy for building support for the program is developed in several areas:

1. Building school capacity to support school implementation with school instructional leaders, CBE teachers, and future CBE teachers as the program is scaled over the course of the 4-year implementation.
2. Providing job-embedded professional learning that is ongoing and enables teachers to build a system of structure and support for student's learning and achievement.
3. Identifying and supporting effective CBE models that currently exist to provide guidance in development and implementation.

These three focused areas for strategies and actions will guide the work of developing a sustainable program and another pathway of learning for students. It is important to note that these structures, when put into place, serve as the program's framework. Unlike already established programs, the competency-based program is an additional avenue of learning for students and designed to fit within the current culture of the school. These overarching areas provide guidance as to how the program can be built and exist among a defined blended and traditional learning environment.

Support for Implementation

Developing a program from not much context, as stated in the As Is framework, provides a multitude of challenges that can inhibit a school from developing the capacity

to be successful. However, it lends itself to the opportunities to research best practices and develop a continuum for implementation progression. There are several levels to work through in developing support for implementation. Based on the current context for Fox River High School, this pilot program is developed to become an established pathway and move from a pilot program to an established one. For program success, the following are needed:

1. Development of a foundation rooted in the mission and vision of the program.
2. Determine the expected outcomes of the program when students graduate.
3. Map the pathway, to include a learning framework (competencies), grading structure, and assessment models.

The foundation of a successful program should be rooted in a mission and vision statement. A mission and vision gives all stakeholders in the program a plan as to what will be accomplished. It is a roadmap that provides direction for the group to build upon. Not only do the statements themselves serve as a constant reminder of what is important to the organization, but the process of developing them allows people to see the organization as *theirs*. Creating these statements builds motivation as members will believe in something more completely once having a hand in developing it. Mission and vision statements continue to build the motivation and belief, for all stakeholders, in the CBE concept and how this program can add to the educational landscape of Fox River High School.

Building a vision statement collectively:

- Draws the individuals involved in the work closer to a common understanding as to why they are doing the work.

- Plays a key role in developing an action plan to execute the development of the CBE program.
- Guides in the decision-making process for the program, which can impact students and program structure/supports.

In the same breath, developing a mission statement collectively allows the opportunity to:

- Develop action plans to base the work on.
- Keep the program goals focused on the end result. This speaks to the support of the implementation of the program.
- Serve as foundational infrastructure, which can tie-in to the district's mission, program supports, and the program structure design.

The goal of this program involves meeting the needs of learners within the culture that already exists with blended and traditional learning. It must work in tandem with the educational culture of the school so that the program learners and teachers are invested in the same end goal—to have graduates who are connected to the real world through knowledge and experiences learned within the classroom.

Job-Embedded Training and Professional Development

Job-embedded professional development refers to teacher-learning grounded in day-to-day teaching practice and designed to enhance teachers' content-specific instructional practices with the intent of improving student learning (Darling-Hammond & McLaughlin, 1995, pp. 597–604). By focusing on the time that exists for teachers during the school day, it is important to intentionally set aside time to meet the needs of teachers and provide support. The competency-based framework is a new way of thinking about education for students in a high school setting. It is a new concept

presented to Fox River High School and needs time to guarantee it is constructed in the most meaningful way to be an educational benefit to the learning community. Research suggests that focusing on the time of the school day is integral, seeing that professional development tends to be more effective when it is an integral part of a larger school reform effort, rather than when activities are isolated, having little to do with other initiatives or changes (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009).

It is a known fact that in education, time presents a challenge. Finding enough time to get all the important work done is merely impossible. Educators have to be intentional and specific in managing time. Intentionally incorporating important focus areas into the day allows educators to focus on positive outcomes because it is now a priority. "When time for professional development is built into teachers' working time, their learning activities can be ongoing and sustained, and can focus on a particular issue or problem over time" (Wei et al., 2009, p. 20, para. 6). In developing a competency-based program, teachers will grapple with a new way of teaching as well as in guiding students in a new way of learning. Allowing students as much time as needed to work on development is imperative; therefore, it is key this program is developed as a collaborative team. The best culture for professional learning is where there is no tension or competing priorities of time, when it comes to meeting the individual needs of teachers and the school. Building a program takes a collaborative effort and cannot be built in isolation. When the learning environment in which each individual development contributes to the whole concept of the program, collaborative experiences and opportunities empower and provide meaningful strategic context to understanding.

Table 4 explains the connection to the As Is–To Be framework discussed in Sections Five and Six. In addition, it provides clarity to developing a CBE program with the current culture, context, competencies, and conditions of Fox River High School. In addition, Table 4's focal point provides an understanding of building a pilot program. This pilot will have further implications and lend itself to more understanding to inform the To Be framework. Another focal point of the table involves what initial structures can be put in place to begin the process of developing this program. The importance of the mission and vision of this program ties its stakeholders to the expected outcomes.

Table 4

4 C's Framework for Strategies and Actions

4 C's	As Is	Strategy (the What)	Action (the How)	To Be
Context	• CBE program is a state pilot that has no current structure. • CBE program has no proven results and is new to the educational landscape in the state. • Traditional and blended learning are the current available pathways. • Grading Practices for Standards Based grading are not set for a CBE program.	• Create a 4-year model of CBE. • Develop a system of monitoring results and metric of success of the program. • Create a plan for implementation and support.	• Designing and forecasting the program through a meeting structure for research and development: ○ Understanding the CBE framework ○ Assessment structures ○ Mapping of the program to include curriculum, competencies and postsecondary opportunities	• CBE program is a structured program that exists in a traditional school setting as another path of learning. • CBE program, which shows proven success in student achievement and meeting learners where they are. • Traditional, competency, and blended learning are pathways available to all learners. • Grading Practices for Standards Based grading are set for a CBE program.
Culture	• Students are failing to meet standards and expectations in traditional classroom settings. • • High school struggles with students not receiving grades to assess student	• Develop coaching around making a shift to competencies vs traditional. • Providing rich professional development to help staff with the mind shift.	• Job-embedded professional development that meets the needs of building the complex structures of this program: ○ Vision/Mission ○ Competencies ○ Instructional models for teaching and learning	• Students are set up to meet standards and expectations of learners in traditional classroom settings. • High school struggles with students not receiving grades to assess student learning and understanding of content.

	learning and understanding of content. • Bias and inequity exists for students who do not perform well academically. • Personalized learning is a concept that has an undefined definition for a CBE to gain understanding.		○ Social Emotional Learning structures ○ Personalized supports for learners ○ Parent supports	• Equity in learning for all students is available through choosing a pathway that is appropriate for the learner. • Personalized learning is a concept that is defined for what CBE looks like in this educational setting.
Competencies	• Teachers have not been trained to unpack standards and develop competencies. • There is a disconnect as to how students connect the competency-based learning approach and skills to the real world. • A system does not exist to evaluate the progress of a competency-based system focused on student achievement.	• Building content under each of the competencies. • Professional development around unpacking standards to fit in competencies. • Understanding the process of how the core teachers developed the process.	• Core teachers providing insight at different steps to developing competencies (Group/ Department). • Reteach students the purpose and reason they are in school and the habits needed to demonstrate mastery of the standards.	• Teachers are trained to unpack standards and develop competencies. • Guidance for students on how to connect the competency-based learning approach to real-world skills. • A system does exist to evaluate the progress of a competency-based system that focuses on student achievement.

Conditions	• Location for the CBE program to take place. • Clear understanding of expectations and outcomes for the CBE program. • Creating supports for students, teachers, and students participating in a CBE pilot.	• Developing a school within a school provides challenges of continuity of educational goals. • Physical space lends itself to the vision of flexibility of the learner.	• Developing an environment that is structured to meet the needs of instructional models. This includes physical space. • Allocating financial resources that meet the needs for infrastructure.	• CBE program has a physical environment and classrooms that lend itself to competency-based learning. • Clear understanding of expectations and outcomes for CBE program have been defined. • Supports created for students, teachers, and students participating in the CBE pilot, including program structures and staff professional development.

Within the 4C's framework that Wagner et al. (2006) examined, context focuses on the larger systems and structures. These structures, which are the foundation of this work, takes time to build. Ownership of professional learning for teachers is essential to having a positive impact on the process of development as a whole.

SECTION SEVEN: IMPLICATIONS AND POLICY RECOMMENDATIONS

Introduction

Purpose

At the beginning of my doctoral journey, I wanted to review, evaluate, and focus on CBE and how high schools can create programs that allow students to show a level of mastery rather than being assessed and then given a letter grade. As I explored personalized learning and the need for students to have voice and choice of their own education, I discovered that grading practices have been debated for many years and is now becoming a great topic of interest. It has been quite a journey to look at personalized learning and develop a framework such as a CBE program that allows schools to tear down the traditional walls of education and really gain an understanding of the work that needs to be done for students to succeed.

The infamous Andrew Carnegie created a system dating back to the early 20th century stipulating a set criteria students would use in completing high school. These criteria included a standard eight to nine months of a school year, the number of hours in a school day, and the number of credits assigned to courses in which a student would need to achieve in order to graduate. Another part of this model consists of the grade structure where students receive a letter grade of *A*–*F* to determine a passing grade and to receive credit. For years, schools have granted credits to students receiving a *D* or better. The Carnegie system has structured policies on how schools have been managed for decades.

The following anecdote describes a shortcoming of the Carnegie model:

> A pilot who flies a plane must complete instruction/coursework in preparation to becoming a licensed pilot. The three main phases of coursework are: takeoff, flying, and landing. During the school coursework, the pilot receives an *A* (or 90 percent) in the takeoff course, a *B* (or 80 percent) in flying, and a *D* (or 60 percent) in the final phase, landing. Unless other parameters are in place for a pilot to pass with a higher percentage, according to the understanding of the Carnegie model, this pilot passes the coursework to graduate and become a pilot.

Are you prepared to get on a plane and fly with this pilot? Most would say no! This is the grading system currently in place for students who must pass with a *D* or better in order to receive a credit or to graduate.

To redesign high schools to best suit the students' needs, new approaches to change policy must be implemented. In addition, the restraints of seat time and grading structures built into many state policy areas (particularly high school credit and graduation requirements) must be confronted. With this redesign, whether a student earns an *A* or *D*, the student still receives credit. There is no question that students will master content standards at different time rates. The time it takes to get the work done should not matter as much as a student showing adequate mastery of the work.

Schools are designed to educate students and move them from one grade level to the next until they graduate to postsecondary options (such as college, the workforce, or a trade), if desired. Currently, students enter a school building and report to their first class—the bell rings and they are to be seated. From there, the teacher teaches for 47

minutes until the bell rings and the students move to the next classroom to repeat the same process, 6 to 8 times a day, 5 days a week. The accountability of what students learn and how to assess a student on the material is left to the teacher to decide. Typically, assessments involve the students completing a sheet full of bubbles (known as a Scantron sheet/form) to show they have mastered a particular skill or amount of curriculum. Most schools operate and function day in and day out for eight to nine months of the year in this manner.

Educational policy addresses critical issues with rules and procedures established at four levels: federal, state, district, and local (Schott, 2014). It behooves educational leaders to cultivate a clear understanding of the power and procedures related to the influence of educational policy development (Burg, 2014). In addition, an understanding should be cultivated in the social, democratic, and economic values embedded in policy efforts. These influential values reflect the perspectives of the community, stakeholders, and policy developers (Burg, 2014).

In 2015, a new law was passed called the, Every Student Succeeds Act (ESSA). This law allows for states to be accountable in maintaining and sustaining high levels of achievement and student success with students. The law advances the equity of students who are disadvantaged and with high needs and school communities so that school communities may receive the funding necessary to reach high standards. States have a greater responsibility to be able to design and build a state accountability system that determines supports and interventions for schools and districts. According to the United States Department of Education, “The Obama administration joined a call from educators and families to create a better law that focused on the clear goal of fully preparing all

students for success in college and careers" (n.d., para. 4). This goal challenges school and districts to think differently and understand that something must be done—things cannot remain status quo.

Why is the ESSA important to supporting CBE? The law gives autonomy to states to allow schools to create academic standards that prepare students for entering postsecondary institutions and the workforce. Most notably, the ESSA radically reduces the U.S. Department of Education's authority over state curriculum frameworks, standards, and testing decisions; it gives states the power to use an "evidence-based" model (Robinson, 2016, para. 4). The ESSA's intent is to hold all students to high academic standards that prepare them for success in college and careers. So, the big questions are, *What does it take for a student to walk across the stage and shake the proffered hand to get a high school diploma* and Does it take a piece of paper known as a transcript to be filled with letters that are not *Fs* or does it take the student to know the learning targets (also known as standards) and to show mastery through performance assessments?

Policy Statement

To ensure schools are focused on graduating students who are college and career ready, schools must be empowered to develop strong systems of improvement based on evidence. This evidence should shift the thought of a letter grade to a model that provides feedback and an understanding of what the student knows and demonstrates.

This policy advocacy focuses on changing policies at the district level for grading practices. Currently, at Fox River High School, grading practices drive how teachers provide instruction to students. State policymakers should use the flexibility in the ESSA

to “transform accountability” and move to more sophisticated models that emphasize competency-based learning and preparation for college and careers (Versel, 2018, para. 1).

Fox River High School has taken an approach that allows students to be assessed through performance to show their level of proficiency of the learning targets in its CBE program. Moss and Brookhart (n.d.) stated, “Learning targets, as their name implies, guide learning. They describe, in language that students understand, the lesson-sized chunk of information, skills, and reasoning processes that students will come to know deeply” (para. 2). Students are not given a letter grade to determine their success for showing mastery of the content. What does a letter grade tell you about a student’s level of performance anyway?

Many people are familiar with the traditional grading system of 90–100 percent being an *A,* 80–89 percent being a *B,* and so on. Traditional grading practices is a time-based system that has been used for decades (over 100 years). To date, it has no meaningful research to support it (Marzano, 2000). Typically, a high school year is broken into either four quarters or two semesters and curriculum is planned into these quarters or semesters. Throughout the quarters or semesters, assessments are administered that allow teachers to provide students with a grade so they know where they are in the class. As well, these grades allow parents an opportunity to know how their student is excelling in the coursework. Teachers, in most cases, subjectively determine what a grade entails. For example, a grade can consist of completion of work, effort, and assessments (e.g., quizzes, end of unit tests, midterms, finals exams). On occasion, extra credit and remediation for failed or inadequate performance on

assignments or assessments are calculated into the grade. There are many characteristics that define a grade in a traditional system. These characteristics can vary from class to class and teacher to teacher. Knowing this is the case, at the end of the quarter or semester, can a single letter grade show if a student has mastered the learning targets in a particular content area? In most cases, it cannot. However, these grades are used to determine a student's GPA and class rank, which impact postsecondary college and career paths. Grades should provide meaningful feedback to students, document their progress, and help teachers make decisions about what instruction a student needs next (Wormeli, 2006).

Again, the question is asked, *What does it take for a student to walk across the stage to get a diploma and shake a few hands*? Grades should represent and show evidence that a student understands the content and is able to show knowledge and depth of learning using performance assessments.

There are many definitions of performance assessment. The definition from the ETS defines performance assessment as follows:

> A test in which the test taker actually demonstrates the skills the test is intended to measure by doing real-world tasks that require those skills, rather than by answering questions asking how to do them. Typically, those tasks involve actions other than marking a space on an answer sheet or clicking a button on a computer screen. A pencil-and-paper test can be a performance assessment, but only if the skills to be measured can be exhibited, in a real-world context, with a pencil and paper. (Educational Testing Service, n.d., Performance assessment definition)

Based on this definition, performance assessments provide students opportunities to make connections to real-world situations and scenarios in which they can apply their knowledge—encouraging them to think beyond memorization.

Evidence-based grading is a system in which students demonstrate their learning by earning a rating for their achievement toward identified course standards. Generally speaking, evidence-based grading communicates the following:

1. The learning goals/targets a student is expected to learn.
2. A student's level of proficiency in each target.
3. The progress a student makes toward proficiency of the targets and standards.
4. Identified areas of a student's success and growth.

Why change a grading system that has been around for so long? A traditional grading system attempts to fuse feedback, achievement results, and performance expectations into a single percentage. In the traditional 100-point grading system, a student's grade is typically an average of the work assigned in class—including classwork, homework, projects, quizzes, and tests. These scores are often recorded based on the type of assignment rather than on course standards. The grade may also include points for nonacademic factors, such as participation, effort, attitude, or timeliness.

Evidence-based grading reflects how well a student has mastered the identified standards; therefore, the grade book does not separate out tests, homework, or projects. Instead, the work a student completes is used to assess his or her mastery of the standards. Scores are directly aligned to course standards (not assignments) and provide the teacher, student, and parents a detailed picture of a student's learning. Nonacademic factors are not included in the mastery rating for a student.

The following anecdotal story shared by Guskey (2006) provides an understanding of how the current system operates and must change to reach the level of accountability states have to educate students and prepare them for postsecondary work, (p. 670). Guskey's story is a representation of why educators must change the current state of education in regards to grading and establish and maintain accountability for a student's achievement:

> Michael and Sheila attend the same high school and take many of the same classes. Michael is an exceptionally bright but obstinate student. He consistently gets high grades on classroom quizzes and tests, even though he rarely completes homework assignments and is often tardy. His compositions and reports show keen insight and present thoughtful analyses of critical issues, but are usually turned in two or three days late. Because of his missing homework assignments and lack of punctuality, Michael receives *C*s in most of his classes and his GPA lands him in the middle of his high school class rankings. But Michael scores at the highest level on the state accountability assessment and qualifies for an honors diploma.
>
> Sheila, on the other hand, is an extremely dedicated and hard-working student. She completes every homework assignment, takes advantage of extra-credit options in all of her classes, and regularly attends special study sessions held by her teachers. Yet, despite her efforts, Sheila often performs poorly on classroom quizzes and tests. Her compositions and reports are well organized and turned in on time, but rarely demonstrate more than a surface understanding of critical issues. Sheila also receives *Cs* in most of her classes and has a class

> ranking very similar to Michael's. But because she scores at a low level on the state accountability assessment, Sheila is at risk of receiving an alternative diploma. (pp. 670–671)

What does this story reveal? It reveals that a shift needs to be made in how a student's depth of knowledge and understanding of the content are assessed.

Being a high school principal, I understand students do what is necessary to get by and get a passing grade. Building a student's understanding of the content to move from one level to the next is like building a house. For example, if a *D* (60 percent) is passing, then building a house on a foundation that is 60 percent completed should be acceptable as well. In all cases, it would not be acceptable because the house would eventually fall. A student with 60 percent of content knowledge will eventually fail because he or she has not shown evidence of an understanding or mastery of the content.

The current policy for Fox River High School does not adequately align with this program for it to be effective. For a CBE program to exist, there has to be a shift in grading practices. There must be a way to allow students to access a depth of knowledge and for parents to understand how their children are assessed and meeting the learning targets in their classes. Additionally, a policy change from traditional grading to an evidence-based model allows for students to be adequately prepared for postsecondary college and career paths.

Analysis of Need

The current grading practices reach far beyond academics and student achievement. This policy advocacy challenges the current state of grading practices in Fox River School District 100, as it refers to the grading practices that need to shift in

order to support the CBE program. The current grading policy affects student motivation, depth of knowledge in the content, and an understanding of the learning targets. The traditional grading system pressures students to compete for class rank and status and presents a culture where students aspire to receive a grade or a specific GPA. A change in the grading policy to grading for students to support the evidence-based grading for the competency-based program would change the mindset of students and their willingness to attain knowledge based on the learning standards. Competency based programs also impacts all stakeholders—educationally, economically, socially, politically, legally, and from a moral and ethical perspective, which serves as the organizational structure for the upcoming sections.

Educational Analysis

Evidence-based grading will shift the way teaching and learning happens in schools. Students will not have learning forced on to them but instead, have the opportunity to own their learning and show they understand the content. Growth and attainment of knowledge is the new focal point for schools as they prepare students for the next level in their educational career. With creating a CBE program, as previously mentioned, the question becomes, *What does it take for a student to receive a diploma?* Many people will say, enough credits. Well, a *D* in a course within a traditional system gets a student credit. In fact, a transcript full of *Ds* allows a student the opportunity to graduate. When this happens, schools fail the students. Evidence-based grading practices uses multiple factors to create a number grade—including the subjectivity of a teacher's inputs when it comes to grading. These factors play a role in a student's achievement, success, and how they are assessed.

To ensure an optimal result of shifting policy to evidence-based grading, a few factors need to be assessed. Most middle schools have the ability to create a policy that teachers can opt-in to or not. There is still a choice in the way a teacher chooses to assess students. At the high school level, which has been the focus, some classes do not provide enough assessment opportunities to support the concept of evidence-based grading and that allow students to prove their mastery of the content. Content areas must be able to have the supports in place to support evidence-based grading, such as common assessments. Developing standards and learning targets for students to meet across a specific content area require that the content be aligned and provide the same metrics across the board from teacher to teacher. There must also be a common remediation policy for students to go back and retake assessments or make corrections in showing mastery of the content. Student feedback is critical because it gives teachers and parents the opportunity to receive a complete understanding of a student's achievement.

Evidence-based grading "involves measuring students' proficiency on well-defined course objectives" (Association for Supervision and Curriculum Development, n.d.-b, para. 3). Table 5 compares traditional grading with evidence-based grading practices.

Table 5

Traditional Grading versus Evidence-Based Grading

Traditional Grading System	Evidence-Based Grading System
1. Based on assessment methods (e. g., quizzes, tests, homework, projects). One grade/entry is given per assessment.	1. Based on learning goals and performance standards. One grade/entry is given per learning goal.
2. Assessments are based on a percentage system. Criteria for success may be unclear.	2. Standards are criterion or proficiency-based. Criteria and targets are made available to students ahead of time.
3. Use an uncertain mix of assessment, achievement, effort, and behavior to determine the final grade. May use late penalties and extra credit.	3. Measures achievement only OR separates achievement from effort/behavior. No penalties or extra credit given.
4. Everything goes in the grade book—regardless of purpose.	4. Selected assessments (e.g., tests, quizzes, projects) are used for grading purposes.
5. Include every score—regardless of when it was collected. Assessments record the average (not the best) work.	5. Emphasize the most recent evidence of learning when grading.

Adapted from O'Connor, K. (2002). How to Grade for Learning: Linking grades to standards (2nd ed.). Thousand Oaks, CA: Corwin Press.

There have been many progressive steps taken to ensure that the foundation of evidence-based grading happens with fidelity at Fox River High School. For example, there are more levels of content that have common assessments, there are opportunities for professional learning communities to get together to build and develop common assessments, and additionally, Fox River High School have conversations about the practice of evidence-based grading and reporting and can lead to growth in the belief of

the evidence-based grading model. When thinking of a policy shift needed for evidence-based, educators must communicate the following:

1. The learning goals/targets a student is expected to learn.
2. A student's level of proficiency in each target.
3. The progress a student makes toward proficiency of the targets and standards.
4. Identified areas of a student's success and growth.

A shift in this grading policy requires parents and students to discern learning based on the student's performance in class. This creates a more knowledge-based grading system, demonstrating what students know as opposed to what they are doing (Brookhart, 2011; Vatterott, 2015).

Economic Analysis

The implementation of an evidence-based grading model will not require a large financial commitment. A few key factors play into the shift—including professional development, the time to work in professional learning communities (PLCs) to develop and build common assessments, and resources that support the work being done to move to evidence-based grading.

Currently, teachers have been afforded the opportunity to take time outside of the classroom to build common assessments, performance assessments, learning targets that align with state standards, and more. What arises is the need for validation of the completed work. If teachers are properly equipped with the knowledge to do this work, they can be confident in the content and assessments provided to the students. Professional development is one of the key cost factors involved in the implementation of evidence-based grading. Training needs to be provided to teachers for them to effectively

perform the work of building an evidence-based model for the competency-based program. The largest sum of money will be spent shifting the mindset of teachers, administrators, and parents. The system provides a great shift in understanding the principles of grading through a different lens. The principles include:

- Getting rid of homework as a compliance grade.
- Using proficiency scales. Having a common understanding of what is proficiency and what proficiency looks like.
- Allowing remediation for students.
- Not averaging points.
- Allowing students to have the opportunity to show mastery.

These principles will greatly impact the way people think and their beliefs about grading.

The other cost in making this shift involves the ability to provide substitutes for teachers to have time to work and build; after-all, creating proficiency scales, assessments, and policies require time. When bringing in consultants to help with the shift, the cost does not compare to the lifelong learning benefits that will be achieved from shifting to evidence-based grading. Students will have more agency and student ownership of their own learning and teachers will know and be able to show that students understand the content and are able to apply that knowledge.

Social Analysis

As many as 40 percent of recent high school graduates state that gaps exist between their high school education and the skills, abilities, and work habits required of them in postsecondary education and the workforce (Hart, 2005). Students are pressured into the competition that goes along with being on the honor roll, class rankings, and the

ability to outperform peers on standardized assessments such as the SAT and ACT. Students have become very focused on reaching the highest letter grade and gaining the most points in a class to show a positive effect on their GPA. The traditional grading system ranks students based on their ability to perform at a high level academically. It favors the ideal student that does his or her work, performs well on tests, and has the support structures in place to do well (such as parent support and internal motivation to ask a teacher for help). A student who does not have these factors is no longer in the running to place high in their class ranking. Students who fall behind because of certain factors (such as a lack of parental support or intrinsic motivation) start to see failing grades because the work is not completed.

What grades do not show is a student's understanding of the content and knowledge base. A student may understand the work, but because of outside factors, perform low on assessments—which would not be an accurate depiction of ability. Failing grades may result in a student being required to attend summer school, experiencing possible grade-level retention, or taking remedial courses to help close the gaps in their knowledge. An evidence-based grading system changes this understanding for students. Standards-based grading takes a more reflective approach which can potentially increase a student's motivation to reach a level of mastery. To further support the notion that a standards-based approach is more reflective of what a student has learned and increases motivation to reach mastery, it is important to learn more about what the student perceives as motivators to their learning (Guskey, 2011).

In, *The Global Achievement Gap*, author Wagner et al. (2006) presented a thorough case of the educational shifts that need to be made in schools. From my

personal experience as an educator, the motivation and success rates of students need to increase greatly if the United States wants to continue competing globally. For Wagner et al. (2006), the global achievement gap represents the gap "between what our more academically able students are taught versus what they will need to succeed in today's world" (p. 43). The relevancy of focusing on what students need to know and are able to know is pertinent to the conversations surrounding the policy of how student achievement is measured. Is it the amount of *A*s and *B*s on a piece of paper (the transcript) or is it an understanding of what a student is able to do through their performance of understanding the content?

Rose Colby (2012) is an experienced educator who has performed extensive research on CBE and its structure. In the article, Is a Standard a Competency, Colby (2012) asks readers to understand that a competency approach is used in almost every field but education. In education, grades determine if a student is able to move on to the next level. If a student receives an *A, B,* or *C,* the assumption can be made that the student has mastered the content to pass the class and move on to the next level of learning. In CBE, where there are no letter grades, the assumption of knowledge and understanding is a null concept. Colby (2012) uses an example to help her readers gain understanding:

> My surgeon is competent not only when she knows the anatomy of the abdomen but can skillfully remove my appendix if needed. My accountant can add, subtract, and divide, but I am counting on his competency to use those skills to problem-solve the data I have given him when calculating my taxes. (para. 3)

The problem with standard grading systems is there is no ability to assess students in a way that allows them to show their understanding of the content. Much time is spent on

acquisition of skills and content versus the application of content and skills to performance assessments that lead to mastery of the content.

Political Analysis

Changing policies to move to evidence-based grading has several implications because it asks individuals raised within the traditional grading system to make a monumental change in practice and understanding. Students, parents, and educators who have been in education for a number of years understand the traditional grading structure. Students understand how to make the honor roll, what a letter grade means, what percentage is needed on a test to pass the class, and the required GPA to apply for a particular college or university. As well, with just a quick glance, parents understand exactly where to go to find what interests them when viewing their student's report card. For educators, it is a matter of quantity over quality, passing or failing, or operating in a grading system they learned in and teach with. Therefore, political backlash is high if evidence-based grading is not implemented carefully.

Letter grades and the traditional 100-point grading system were established in the early 19th century. It was in 1897 at Mount Holyoke College in South Hadley, Massachusetts that letter grades tied to numerical or percentage scales were first used (Lassahn, 2017). The grading system appeared to be standardized in a fair manner. The controversy that has lived in the political eye involve debates about grade inflation and the subjectivity of the grades that foster student learning. Many can make the argument that grades are purely subjective, as they can be inflated.

As the relationship of grades to learning become a topic of conversation, there exists a more philosophical approach to be taken. Grading scales across schools are not

the same and the variability of these scales have a bearing on a student's admission to college. Therefore, for evidence-based grading to be implemented properly, all stakeholders must be on the same understanding of the shift. If the stakeholders are not, there is the possibility that during implementation, this new system could be derailed and go unsupported.

There are several stakeholder groups that need to understand and support the philosophy and logistical approach to evidence-based grading: teachers and administrators, parents, and school board members. Each of these groups must understand—at various degrees of depth, but with the same basic understanding and goal.

Teachers and administrators.

For this shift to happen with fidelity, teachers and administrators first need to understand their perceptions and acknowledge their beliefs about grading. Surveys and professional development are ways to assess the culture of the staff in their understanding of grading. Schools and districts making this shift are advised to have a consultant's help in the effort. Doing so allows the opportunity to have someone specialized in the work to build understanding and capacity at all levels as the implementation of evidence-based grading takes place. Professional development is also key in training teachers and administrators on how to make this shift.

Parents.

The parents buy-in is significant to the success of the process; therefore, they must be provided with as much information as possible. Parents will question how this new grading system affects their child's ability to be accepted to college and universities, since the student is not receiving letter grades, a GPA, or class ranking (as per usual).

Helping parents understand and providing platforms and opportunities for them to ask questions will build support. If the school district can provide credible evidence of why this new system is best for their students, parents most likely will support the change.

School board members (board of education).

The most important group that needs to understand evidence-based grading is the school board. Typically, most board members are not educators so it is very important that they understand the nuance of grading and the implications of this type of grading system.

To start, the school board should be consulted about this new shift early on in the process because they are the educational leaders of the district and make decisions in the best interest of all parties. Without them on board, the derailment of implementing such a system is inevitable. The more information and understanding the board receives from their building administrators and teachers, the better the support for the policy change. Understanding the implications of the policy change—for example, its objectives, its benefits, and the challenges of evidence-based grading—will be integral to success. When there are concerns brought forward from voices within the school community, the school board needs to be able to speak to them and show support for the change. Lack of support and understanding from this governing body can be detrimental, have major implications, and cause evidence-based grading susceptible to failure and negativity.

Legal Analysis

The traditional grading system does not have an impact on what students are able to learn and what they should know; it lends itself to grading based on progress, product, and process. Teachers continue to average scores to calculate grades—combining

indicators of achievement, behavior, and progress into a single grade and grading on a curve, despite evidence showing the detrimental consequences of these practices (Brookhart, 2011). Product grades are defined as grades that come from evidence of what students know and are able to do at a particular point in time. Process grades focus on the student behaviors needed to reach achievement goals. Some examples of process grades are responsibility, effort, skills, and work habits. Progress grades are defined as how much students improve or gain from their learning experiences (Jung & Guskey, 2011). The legal implications of evidence-based grading and understanding the traditional system of grading have a great impact on exceptional learners.

Evidence-based grading corrects many of the fundamental errors of traditional education, such as subjective practices and grade inflation. A concern is that evidence-based grading highlights the challenges of students who are not able to achieve grade-level standards. Typically, these students have IEP as part of their special education programs. If educators are saying that students are to attain a certain level of mastery in a standard in order to move on to the next level, how do educators accommodate students who are not able to meet that standard? If students are to attain a certain level of mastery in a standard in order to move on to the next level, how do educators accommodate students who are not able to meet that standard? This provides the legal implication of educational equity among students.

To address the challenge in grading exceptional learners, Jung and Guskey (2007) developed a process that enabled teachers to assign fair, legal, and accurate grades for exceptional learners (Jung & Guskey, 2007). Five grading model steps are addressed in

this process and can help guide an understanding of what students can attain and what teachers should do should there be a present challenge. They are:

1. Determine whether the expectation is attainable.
2. Determine the type of adaptation needed.
3. Determine the modified expectation.
4. Base grades on the modified expectations.
5. Communicate the meaning of the grade. (Jung & Guskey, 2007, pp. 33–34)

The instructional support teams work through the five grading model steps to determine the level needed to help students achieve mastery, just as their peers. Failure to make the necessary adjustments can have a greater impact on the equity of students with special needs and circumstances, as defined by their legal documents such as a 504 or IEP. The bigger domino effect is the policy issue involving course credit, GPA, nonacademic eligibility (in regards to sports), and much more.

Successful implementation of evidence-based grading involves consistently implementing with equity and communicating clearly to students and families of the educational shift this will bring, as well as understanding the philosophical shift required in the assimilation of how goals are written for students. Students, parents, teachers, and administrators must have in-depth knowledge of evidence-based grading to appropriately write goals, make sure the student is successful, and make sure plans are followed to alleviate any negative implications of evidence-based grading.

Moral and Ethical Analysis

Evidence-based grading requires that teachers have the ability to assess students and allow students to show mastery of ongoing learning, rather than allowing subjective

grades to define the students' ability to master the content. Take homework for example; in a traditional grading system, homework is 5–10 percent of a student's overall grade (sometimes more depending on how the grading system is set due to a student's circumstances and other factors affecting a child outside the classroom). This 5–10 percent can negatively impact the true understanding of a student's capabilities. If support is not given to a student to perform well outside of the classroom, how can what a student knows versus what a student is able to master accurately be depicted?

In a traditional system, students compete for the top with class rank, fight for points to get the highest grade, and do more (such as extended learning opportunities, additional tutoring, extra credit) to get ahead of the system. This does not allow a teacher to see what a student knows. In addition, the teacher is put in a challenging position to determine what is acceptable for a student to receive the points. There are students who do more than what is expected to reach the highest level of achievement thinking that the teacher will award them more points for just doing extra. There are some schools and school communities where this level of competition for grades is a driving force because of the implications it brings later in getting into a college or university where a certain GPA and class rank must be achieved to even apply. As well, some postsecondary programs require a high level of achievement to be accepted. Traditional grades that factor in the student's behavior, ability to complete homework, participation, and other such factors does not accurately tell the truth of what the student knows. So, are postsecondary institutions really getting what they are requiring? Evidence-based grading requires and relies on work within the classroom to assess students' knowledge and mastery of the materials; and students rely on teachers' feedback to improve and attain

mastery in their studies. By allowing a student to show mastery, evidence-based grading breaks the barriers of competition and creates a more equitable system for students.

Implications for Staff and Community Relationships

Evidence-based learning opens the door for students to have extended learning opportunities (ELO) that stem beyond the classroom. It requires students to apply their knowledge and show proof they understand the content. Extended learning opportunities include a broad range of programs that provide children with academic enrichment and/or supervised activities beyond the traditional school day and in some cases, beyond the traditional school year (National Education Association, 2008).

The staff implications of evidence-based grading allow teachers to know their students on a different level because teachers have a better awareness of their students' learning abilities and how they perform in the classroom setting. Teachers are not just assessing students' completed work, but are also allowing students the opportunity to see how they process content and show they know the information. The relationship between teacher and student becomes stronger because students are more keen to connect with teachers if they know the teacher will meet them where they are in the content. In turn, teachers are more apt to ensure that gaps in knowledge don't exist before a student progresses to the next level.

The community benefits from the extended learning opportunities because it provides a relationship with the school and school district to engage with what the community has to offer and allows the community to be a part of the educational process for students. The additional supports that can be provided by the community help to boost the understanding of the content because students have the ability to apply their

knowledge. When school-aged children do not have access to such programs and are left unsupervised after school, for instance, they are more likely to receive poor grades, drop-out of school, and engage in high-risk behaviors than those who participate in constructive activities (National Education Association, 2008). This can have huge impacts on the community because these students are not giving back to the school communities in a positive way.

Conclusion

For CBE to hold true to its mission and structure, evidence-based grading is the most important and true component. The main questions are, *What does it take for a student to walk across the stage and receive a high school diploma?* Is it inflated and subjective grades or a knowledge that students have an in-depth connection to the content? Traditional grading systems are not as impactful as evidence showing the depth of knowledge. Feedback is a crucial component for the student-teacher relationship. Teachers are able to connect with their students, see what they need, and know how to get them there so there is no evidence of gaps in learning. A policy change promotes a growth mindset that asks for society to not operate as it did in the 19th century but instead, to change education and provide students with a meaningful education, as well as a lucid view of content that will prepare them for postsecondary work.

SECTION EIGHT: CONCLUSION

Introduction

Academic expectations for K–12 education are higher than ever. Students graduating from high school are held to higher standards than when the Carnegie model of education started. From federal to state and local mandates, educators have the challenging task of making sure that students reach the highest level of mastering content possible. According to Colby (2018), "Competency-based education is a fundamental transformation of our education systems" (p. 1).

From my understanding, it seems as though education reform continues to try and fix the challenges educators face in meeting student needs. The traditional time-based system of learning has been effective for many years, but is becoming difficult to improve. The goal of the program evaluation was to understand the effectiveness of personalized learning and its impact on the traditional education system. The outcome of the program evaluation was to focus on the creation of a CBE program in a large, suburban high school with the means to encourage another method of teaching and learning.

The following primary and secondary research questions guided this study and supported the program evaluation:

Primary:

1. How do the practices required for the personalized learning inform a competency-based education model implemented in a suburban district?

Secondary:

2. How do teachers describe personalized learning in ways that assist in the preparation of students for college and career readiness through a competency-based method?
3. What role do technology, competency-based education (CBE), and blended learning play in building the necessary capacity required for successfully implementing personalized learning?
4. To what extent do competency-based programs affect traditional grading practices?

During the program evaluation, the focus on the personalization of learning was a prominent theme. Among the themes that emerged was the understanding of a new way of learning including grading and how students were assessed in this new system. Additionally, the focus on job-embedded professional development became obvious as there is a need to have educators develop a different mindset than the blended and traditional model that has been used for many years.

Discussion

The focus on program development and building structures that meet the needs of the educational landscape of Fox River High School is a priority for the district, as it relates to personalized learning. Evidence shows that in education, there is a need for a new way of learning. The purpose of this research was in exploring the concept of creating a competency-based program to meet the needs of students and adds to the educational landscape of the school. Competency-based education represents a new and effective way of learning.

A question that prompted thought for this research was, *What does it take for a student to walk across the stage and receive a diploma from high school?* To be competitive in a postsecondary context, it takes more than a transcript with a list of classes and letter grades ranging from *A*–*F*. Another question which prompted thought was, *Should a traditional letter grade define a student and who he or she is and what he or she can provide to society?* Through this research, it has been determined that grading is subjective and can include many other aspects, such as behavior and participation. Grades do not determine whether a student has complete understanding of the content or a depth of knowledge.

The program evaluation discussed the challenges I faced as a student and not being challenged. I settled for *A*s and *B*s, which were easy for me to get. There were times I was okay with meeting the mark, knowing I could have done more to access a deeper understanding of the content. As a student, I did not think of that. As an educator and school administrator, it is concerning (as I look at students who filter into classrooms across the high school) knowing there are students who are doing the same thing as I did. It is not just a structural issue; it becomes an ethical issue that was discussed throughout the policy advocacy section. How can educators ensure that students are not graduating from high school with little to major gaps in their knowledge?

Recall the anecdotal example provided earlier in the policy advocacy section regarding the pilot. If a pilot received an *A* on the takeoff portion of a test, a *B* on the flying portion, and a *D* on the landing portion, is he or she a competent pilot? The easy answer is NO! However, according to the current grading systems, the pilot would have passed because *D* is a passing score in the traditional grading system. Colby (2018)

quoted in her book, *a New Architecture of Schooling*, "Herein lies the heart of the future of education—redefining and redesigning out systems to make sure that all students move forward, learning at their own pace, and with the support they need to meet proficiency on defined competencies" (p. 5). If this new architecture for learning is indeed created, schools change, learning changes, and how educators reach the end goal of preparing students for life after high school changes.

The policy advocacy section of this research addressed the need for schools and school districts to allow for standards-based grading. This represents a major shift that takes time and requires a different mindset from traditional grading, which most everyone who has gone through education has experienced. Just because it has always been done in a traditional way does not mean it must continue. The educational system is preparing students for jobs and industries that do not yet exist.

According to an International Society for Technology in Education (ISTE) blog by Nicole Krueger (2019),

> The massive shifts technology and globalization that are expected to transform the workplace have already begun. In many industries and countries, some of the most in-demand jobs didn't even exist five or 10 years ago—and the pace of change will only accelerate. (para. 1)

Young people have 4 years of high school. By the time they enter high school, they may have an idea of the profession they want to work to attain. If schools are responsible for educating students and preparing them for the postsecondary workforce or college, educators cannot keep up with the traditional pace and structures that currently exist. This means that education will continue to be behind the curve.

Competency-based education lends itself to students moving at their own pace as well as working through their competencies in an interdisciplinary structure. Competency-based education programs have the ability to create performance assessments that meet the needs of several content areas. Scott McLeod, an educator leader, was interviewed for Krueger's (2019) blog article and stated, "I think we need to do a better job of teaching kids to live at intersections" (para. 5); McLeod continued,

> In schools we usually silo our content. You take courses that are within particular disciplinary areas, and they're very confined to just that one subject. We rarely give students the opportunity to live in interdisciplinary spaces and to live in cross-thinking areas where they can see the connections across disciplines. (Krueger, 2019, para. 5)

If students are able to show mastery of the content through meeting the standards and learning targets, time does not become an issue. Students are able to meet the requirements at a pace that works for them. The time-based traditional system and grading structures of education are now not the issue. The research focus of the policy advocacy and program evaluation creates a learning environment that meets student needs and provides the advantage for these students to own their own learning, with time not being a part of the equation. Competency-based education has the ability to change the trajectory of the educational landscape to meet the demands of ever-changing professions and also meet the needs of all students.

Leadership Lessons

Research performed in studying CBE has challenged my thinking and mindset of education and how educators educate young people. A mindset shift must happen in order

to think of education differently. Colby (2018) stated, “The typical job description of leaders in the traditional school model has to be reexamined in light of the need to meet this very different learning environment” (p. 141).

One of the greatest challenges is in changing a system that students, teachers, and parents understand very well and are comfortable with using. Educators have to be willing to challenge a system, working toward the betterment of the overall end goal, which is to prepare students for the world in which they live.

Amazing perspectives were gained for my own leadership by:

- Engaging in the process of gathering and analyzing data through interviews.
- Examining pieces of a very complex system that confronts the status quo in education.
- Working to increase learning opportunities for teachers through job-embedded professional development.
- Exploring ways to create structures of a competency-based program and experiences for students in the classroom that lends itself to a flexible and new way of learning.

Having the ability to evaluate my leadership through this research has helped me develop a larger vantage point of promoting the change of the educational landscape and opportunity for learners and educators.

In the book, *The Practice of Adaptive Leadership Tools and Tactics for Changing Your Organization and the World*, two types of challenges in change were identified: technical and adaptive (Heifetz, Linsky, & Grashow, 2009). Technical solutions can be defined as challenges that can be solved by those who are knowledgeable in the field.

Adaptive solutions can be defined as challenges that can be solved with acquiring new knowledge, better known as the learning curve. Through developing a CBE program, my leadership focused on an adaptive solution to challenging the status quo of a traditional, time-based education system. Through working on adaptive solutions, I have also used this research to expose technical challenges through strategies and actions that have been defined in developing a CBE program.

One of the most compelling metaphors used throughout the practice of leadership is "getting on the balcony" (Heifetz et al., 2009, pp. 7–8). Heifetz et al. uses this metaphor to describe how leaders take a balcony perspective to capture the mental activity of stepping back and looking at the change taking place. Leaders take opportunities to *get on the balcony* to observe and reflect on their activities. It is often challenging for leaders to go back and forth to the balcony when they are fiercely engaged in the work being done below. When focusing on the strategies and actions of this research, I concentrated much of the work on finding a balance between being on the balcony and allowing educators to grapple with developing plans for building a CBE program.

Conclusion

Growing up, I learned that urgency is the greatest protector of time. Throughout my leadership lessons and through understanding of the importance of the work, with a sense of urgency, every second, every minute becomes precious to our nation's students. Kelleher (2015) noted the following:

> Harvard professor John P. Kotter, who specializes in organizational change, said a sense of urgency is a highly positive and highly focused energy, driven by the

> belief that the world contains both great opportunities and great hazards, and one must be determined to act now on critical issues, making true progress every single day. (para. 1)

Urgency is the driving force in creating meaningful change in increasing learning, and it also is the best tool to increasing engagement for students. Providing a change in education that is different than what parents, students, and educators are used to is high stakes and consequences really do matter. Competency-based education can challenge students to do more and know more—thus being ready to compete globally at the highest level and against a world in which time will not stop nor slow down.

REFERENCES

A Nation at Risk. (1983). The imperative for educational reform: a report to the Nation and the Secretary of Education, United States Department of Education. Washington, D.C.: National Commission on Excellence in Education.

Ainsworth, D. (1977). Examining the basis for competency-based education. The Journal of Higher Education, 48 (3). Retrieved from http://www.jstor.org/stable/1978684

Asia Society. (2020). Why We Need Competency-Based Education. (n.d.). Retrieved February 29, 2020 from https://asiasociety.org/education/why-we-need-competency-based-education; para. 7.

Association for Supervision and Curriculum Development. (n.d.-a). Differentiated Instruction. Retrieved February 8, 2020 from http://www.ascd.org/research-a-topic/differentiated-instruction-resources.aspx; para. 1.

Association for Supervision and Curriculum Development. (n.d.-b). Seven Reasons for Standards-Based Grading, by Patricia L. Scriffiny. *Educational Leadership: Expecting Excellence* (October 2008). Vol. 66, Number 2, pp. 70–74, para. 3, as cited in Tomlinson & McTighe, 2006. Retrieved from ASCD, http://www.ascd.org/publications/educational_leadership/oct08/vol66/num02/Seven_Reasons_for_Standards-Based_Grading.aspx; para. 3.

Benson, S. (2013). "What is Personalized Learning? A Working Draft." iPersonalize. Retrieved April 3, 2014 from http://ipersonalize.org/2013/08/06/what-is-personalized-learning/

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

Brookhart, S. M. (2011). Starting the conversation about grading. Educational Leadership, 69(3), 10–14.

Burg, C. (2014, February 21). Policy studies for educational leaders: An introduction. Review of the book Policy studies for educational leaders. Prentice Hall, Inc., 2000.

Canaleta, X., Vernet, D., Vicent, L., & Montero, J. A. (2014). Master in teacher training: A real implementation of active learning. Computers in Human Behavior, 31, 651–658. doi: 10.1016/j.chb.2013.09.020.

Christensen Institute. (n.d.). Blended Learning: What is blended learning? Retrieved from https://www.christenseninstitute.org/blended-learning/

Colby, R. (2012, May 9). *Is a Standard a Competency? (Part 1*)." CompetencyWorks Blog. Retrieved May 19, 2012 from http://www.competencyworks.org/2012/05/is-a-standard-a-competency-part-1/, para. 3.

Colby, R. (2017, November 3). *Personalized Learning: Equity, Access, Quality*. iNACOL Symposium (Keynote presentation). Retrieved from https://youtu.be/4B7rs64y3TY

Colby, R. (2018). Competency-based education: A new architecture for K–12 schooling. Cambridge, MA: Harvard Education Press; pp. 1, 4–5, 97, 141.

Common Core State Standards Initiative (n.d.). Read the Standards. Retrieved from http://www.corestandards.org/read-the-standards/

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Sage Publications, Inc., p. 37.

Darling-Hammond, L., & McLaughlin, M. W. (1995). Policies that support professional development in an era of reform. Phi Delta Kappan, 76(8), 597–604.

DeLorenzo, R. A., Battino, W., Schreiber, R., & Carrio, B. (2009). Delivering on the promise. Bloomingham, IN: Solution Tree Press; p. 76.

de la Puente, M. A, Robles, H. S., Acuña, L. G., & Delgado, M. (2018, June 28). *The Effectiveness of Project-based Learning Methodology in an External Commerce Course: A Preliminary Analysis for the Colombian Caribbean Region*; Vol: 19, Issue: 2. Retrieved from https://www.abacademies.org/articles/the-effectiveness-of-projectbased-learning-methodology-in-an-external-commerce-course-a-preliminary-analisis-for-the-colombian-car-7310.html

Denzin, N. K. & Lincoln, Y. S. (1994). Introduction: Entering the Field of Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 1–18). Thousand Oaks, CA: Sage Publication, Inc.

Denzin, N. K. & Lincoln, Y. S. (2005) Introduction: The Discipline and Practice of Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds), *Handbook of Qualitative Research* (3rd ed., pp. 1–32). Thousand Oaks, CA: Sage Publication, Inc.

Desmond, N. (2010). *Networking in Ireland's Ethnic Enterprises: Entrepreneurship and Opportunity* [book preview]. Cambridge Scholars Publishing, p. 111.

Educational Testing Service. (n.d.). Glossary of Standardized Testing Terms; Performance assessment definition. Retrieved from, https://www.ets.org/understanding_testing/glossary/

Gates Foundation. 2010. Next Generation Learning. Retrieved June 30, 2019 from https://docs.gatesfoundation.org/Documents/nextgenlearning.pdf

Glesne, C., & Peshkin, A. (1992). Becoming qualitative researchers: An introduction. White Plains, NY: Longman. (As cited in Watt, D. (2007). On Becoming a Qualitative Researcher: The Value of Reflexivity. *The Qualitative Report*, 12(1), 82–101. Retrieved from http://nsuworks.nova.edu/tqr/vol12/iss1/5

Guskey, T. R. (2006). Making High School Grades Meaningful. Retrieved from http://www.ets.org/understanding_testing/glossary/; pp. 670–671.

Guskey, T. R. (2011). Five obstacles to grading reform. Effective Grading Practices, 69(3), 16–21.

Hart, P. (2005, February 7). *As Many as 40 Percent of American Public High School Graduates Are Unprepared for College and Work*, Peter D. Hart Research Associates and Public Opinion Strategies. Retrieved from https://www.achieve.org/many-40-percent-american-public-high-school-graduates-are-unprepared-college-and-work

Heifetz, R. A., Linsky, M., & Grashow, A. (2009). *The Practice of Adaptive Leadership Tools and Tactics for Changing Your Organization and the World*. Boston: Harvard Business Review Press, pp. 7–8.

Hernandez, A. (2016, May 11). Stop trying to define personalized learning. Retrieved from EdSurge News at www.edsurge.com/news/2016-05-11-stoptrying-to-define-personalized-learning

Herold, B. (2016, October 18). Personalized learning: What does the research say? Retrieved from Education Week at www.edweek.org/ew/articles/2016/10/19/personalized-learning-whatdoes-the-research-say.html

Horn, M. B., Staker, H., & Christensen, C. M. (2017). *Blended: using disruptive innovation to improve schools*. San Francisco, CA: Jossey-Bass.

Huson, J. A. (2017, November 21). The Advantages of Traditional Schools. Retrieved from https://education.seattlepi.com/advantages-traditional-schools-2140.html

Iamarino, D. L. (2014). The benefits of standards-based grading: A critical evaluation of modern grading practices. Current Issues in Education, 17(2), 1–10.

Jacobson, L., & Holian, L. (2010). The relationship between changes in the percentage of students passing and in the percentage, testing advanced on state assessment tests in Kentucky and Virginia. (Issues & Answers, REL 2010–No. 087). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Appalachia.

Jerald, C. (2009). Defining a 21st century education. The Center for Public Education. Retrieved from www.cfsd16.org/public/_century/pdf/Defininga21stCenturyEducation_Jerald_2009.pdf

Jung, L. A., & Guskey, T. R. (2007). Evidence-based grading and reporting: A model for special education. Teaching Exceptional Children, 40(2), Retrieved from https://uknowledge.uky.edu/cgi/viewcontent.cgi?article=1004&context=edp_facpub; pp. 33–34, 48–53.

Jung, L. A., & Guskey, T. R. (2011, October 31). Fair & Accurate Grading for Exceptional Learners. Retrieved November 2, 2019 from https://eric.ed.gov/?id=EJ965261; pp. 33–34.

Kelleher, J. (2015, October 15). *Create a sense of urgency to spark learning. Urgency Defined*, para. 1. *Phi Delta Kappan 97*(2), 21–26, para. 1. Retrieved from https://kappanonline.org/create-urgency-spark-learning-kelleher/

Klein, A. (2015, April 10). No Child Left Behind: An Overview. *What are some of the main criticisms of the current law?* Retrieved from https://www.edweek.org/ew/section/multimedia/no-child-left-behind-overview-definition-summary.html; para. 2.

Krueger, N. (2019, November 22). Preparing students for jobs that don't exist. When worlds (and fields) collide. Retrieved from https://www.iste.org/explore/ISTE-blog/Preparing-students-for-jobs-that-don%27t-exist; paras. 1 and 5.

Lassahn, N. (2017, March 31). The Grading System in U.S. Colleges. Retrieved November 2, 2019 from https://classroom.synonym.com/grading-system-us-colleges-4164.html

Le, C., Wolfe, R., & Steinberg, A. (2014, September). *The Past and the Promise: Today's Competency Education Movement*. Students at the Center: Competency Education Research Seres. Boston, MA: Jobs for the Future, p. 3.

Lulat, Y. G. M. (2005*). A History of African Higher Education from Antiquity to the Present: A Critical Synthesis*. *The Developing Economies*, *45*(2), 179, 245–248.

Marzano, R. (2000). Transforming classroom grading. Alexandria, VA: ASCD.

Marzano, R. J., & Heflebower, T. (2011, November). *Grades that show what students should know*. Educational Leadership [MasterFILE Elite]; Vol. 69, n3, pp. 34–39.

McGraw Hill. (2017, November 1). The 6 Hallmarks of Personalized Learning: Understanding and Implementing Personalized Learning Purposefully. Retrieved from https://medium.com/inspired-ideas-prek-12/the-6-hallmarks-of-personalized-learning-1ce4949c7660; para. 2.

Merriam, S. B. A. (2007). *Qualitative research in practice: Examples for discussion and analysis* (1st ed.). San Francisco, CA: Jossey-Bass; pp. 3, 12.

Moss, C. M., & Brookhart, S. M. (n.d.). Learning Targets. What a Learning Target Isn't and Is. Retrieved from http://www.ascd.org/publications/books/112002/chapters/Introduction@-Why-Should-We-Pursue-Learning-Targets¢.aspx; para. 2.

National Education Association. (2008). Closing the Gap through Extended Learning Opportunities [NEA Policy Brief]. Retrieved November 2, 2019 from http://www.nea.org/assets/docs/HE/mf_PB04_ExtendedLearning.pdf

Novak, J. D. (2003). The promise of new ideas and new technology for improving teaching and learning. *Life Science Education*, *2*(2), 122–134.

O'Connor, K. (2002). *How to Grade for Learning: Linking grades to standards* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Patton, M. Q. (1990). *Qualitative Evaluation and Research Methods* (2nd ed.). Newbury Park, CA: Sage Publications, Inc.

Patton, M. Q. (2003). Qualitative evaluation checklist. Retrieved from https://wmich.edu/sites/default/files/attachments/u350/2018/qual-eval-patton.pdf; p. 2.

Patton, M. Q. (2008). *Utilization-focused evaluation*, 4th edition. Thousand Oaks CA: Sage; pp. 39, 169–186, 421, 478.

Rickabaugh, J. (2016). *Tapping the power of personalized learning: a roadmap for school leaders*. Alexandria, VA: ASCD.

Riley, B. (2017, March). Personalization vs. How People Learn. *Educational Leadership*, *74*(6), 68–72. Retrieved from https://deansforimpact.org/wp-content/uploads/2017/03/Educational-Leadership_Getting-Personalization-Right_Benjamin-Riley_March-2017.pdf (http://www.ascd.org)

Robinson, G. (2016, January 4). A Remarkable Feat in Education: The Every Student Succeeds Act puts a stop to the Department of Education's decades-long stranglehold on education policy. Retrieved from https://www.usnews.com/opinion/knowledge-bank/articles/2016-01-04/the-every-student-succeeds-act-loosens-the-federal-grip-on-education; para. 4.

Ryan, S., & Cox, J. D. (2017). Investigating student exposure to competency-based education. *Education Policy Analysis Archives*, *25*(24). Retrieved from http://dx.doi.org/10.14507/epaa.25.2792; p. 3.

Schott, J. (2014). The study of policy for public school educational leaders review. A review of the book, Policy studies for educational leaders. Prentice Hall, Inc., 2000.

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.org; p. 15.

Slocum, N. (2016, February 17). What is Personalized Learning? Personalized Learning, Defined, para. 2 [Education Domain blog post]. Retrieved from https://aurora-institute.org/blog/what-is-personalized-learning/

Springer, M. (2008). The influence of an NCLB accountability plan on the distribution of student test score gains. Economics of Education Review, 27(5), 556–563.

Stephens, E. (2010). 7–12 Grade English/language arts teachers and their classroom grading practices: Investigating the use of standards-based grading in Nebraska's rural classrooms (Doctoral dissertation). The University of Nebraska, Lincoln.

Stullich, S., Eisner, E., & McCray, J. (2007). National assessment of title I final report (Vol. 1: Implementation, NCEE 2008–4012). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance.

Sullivan, S. C., & Downey, J. A. (2015, Summer). Shifting educational paradigms: From traditional to competency-based education for diverse learners. *American Secondary Education*, *43*(3), 6, 4–9.

Tomlinson, C. A., & McTighe, J. (2006). *Integrating differentiated instruction & understanding by design: connecting content and kids*. Alexandria, VA: Association for Supervision and Curriculum Development.

United States Department of Education. (n.d.). Every Student Succeeds Act (ESSA)—*A New Education Law*. Retrieved March 7, 2020 from https://www.ed.gov/essa?src=rn; para. 4.

United States Department of Education. (2009, November). *Race to the Top Program Executive Summary*. United States Department of Education. Retrieved from https://www2.ed.gov/programs/racetothetop/executive-summary.pdf; p. 2, para. 2, Background.

United States Department of Education. (2011, May). *Increasing educational productivity: Innovative approaches and best practices.* [Web blog.] Retrieved from https://blog.ed.gov/2011/05/increasing-educational-productivity-innovative-approaches-best-practices/

University of Chicago Office of Communications. (2015, July 24). Race to the Top initiative spurs U.S. education policy reform, study finds, *UChicagoNews.* Retrieved June 17, 2019 from https://news.uchicago.edu/story/race-top-initiative-spurs-us-education-policy-reform-study-finds

Van den Bergh, L., Ros, A., & Beijaard, D. (2014, August 1). Improving Teacher Feedback During Active Learning: Effects of a Professional Development Program. American Educational Research Journal, 51(4), 772–809. Retrieved from https://doi.org/10.3102/0002831214531322

Vatterott, C. (2015). Rethinking grading: Meaningful assessment for evidence-based learning. Alexandria, VA: ASCD.

Versel, L. (2018, January 3). States Urged to Emphasize Competency-Based Learning in the ESSA Era. Retrieved from https://blogs.edweek.org/edweek/DigitalEducation/2018/01/states_urged_to_add_competency.html; para. 1.

Wagner, T., Kegan, R., Lahey, L., Lemons, R. W., Garnier, J., Helsing, D., Howell, A., & Rasmussen, H. T. (2006). Change leadership: A practical guide to transforming our schools. Jossey-Bass; pp. 43, 99, 101–102.

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad.* Dallas, TX. National Staff Development Council. https://learningforward.org/wp-content/uploads/2017/08/status-of-professional-learning-phase-1-technical-report.pdf; p. 20, para. 6.

Wolcott, H. F. (1994). As cited in Needs Assessment: A Creative and Practical Guide for Social Scientists, by Rebecca Reviere [book preview], p. 12.

Wormeli, R. (2006). Fair isn't always equal: Assessing grading in the differentiated classroom. Portland, ME: Stenhouse.

Zeichner, K. (2002). Beyond traditional structures of student teaching. *Teacher Education Quarterly, 29*(2), 59–64.

Appendix A: Semistructured Interview Protocol

- Background Questions
    - Tell me a little about your background.
        - How long have you been in education?
        - What was your subject concentration?
        - What led you to become an educator?
- Educational Landscape of Fox River School District 100
    - Tell me about your experiences at Fox River High School, from the vantage point of a teacher.
        - How has the growth of HHS impacted the education of students?
        - Fox River High School has not always had the opportunities that students have for class offerings and different tracks of learning. What did that look like when you started as a teacher?
        - When did the high school decide to begin moving to different modalities of learning?
    - Tell me about personalized learning.
        - What is your definition of personalized learning?
        - When you hear personalized learning as a teacher, what excites you about it?
        - When you hear personalized learning as a teacher, what do you find challenging?
        - How have you had to change your mind set about the way students are educated?

        - What role does technology play in personalized learning?
    - Teacher/Student Perspective
        - How do you teach students to learn what they don't know before understanding personalized learning?
        - How did you see professional growth in the area of personalized learning?

Appendix B: Letter of Consent

National Louis University

Dear (Insert Name):

You are being invited to participate in a research study on competency-based education through the lens of personalized learning in a public high school. In particular, I am interested in how competency-based education is related to personalized learning and how it compares to other modes of learning such as traditional and blended learning models.

This research will require about 1–2 hours of your time. During this time, you will be interviewed about your experiences with competency-based education and blended learning. The interviews will be conducted wherever you prefer (e.g. at a coffee shop), and will be digitally recorded.

There are no anticipated risks or discomforts related to this research. By participating in this study, you will help readers of this study understand personalized learning through a competency-based approach by referencing your own experiences from the field.

Several steps will be taken to protect your anonymity and identity. While the interviews will be digitally recorded, the recordings will be destroyed once they have been transcribed. The typed interviews will NOT contain any mention of your name, and any identifying information from the interview will be removed. The typed interviews, notes, interview transcriptions, and any other identifying participant information will be kept on the researcher's computer and remain in the personal possession of the researcher, which is password protected.

Your participation in this research is completely voluntary. If you decide to participate, you will receive a $15 gift card to a coffee shop of your choice for your time. However, you may withdraw from the study at any time for any reason. If you withdraw, any information you provided to that point will be destroyed. The gift card is yours to keep. Study results will be presented in writing in the final published dissertation and may also be published in subsequent published articles surrounding this topic.

At no time, however, will your name be used or any identifying information revealed. If you wish to receive a copy of the study results, please contact me at the telephone number provided.

If you require any information about this study, or would like to speak to me as the researcher, please call Marcus Belin at 309.712.5541. If you have questions regarding your rights as a research participant, you may also contact the National Louis University Institutional Review Board at IRRBMailbox@nl.edu

I have read (or have been read) the information regarding this research study on competency-based education and personalized learning, and consent to participate in this study.

_____

(Printed Name)

_____

(Signature)

_____

(Date)