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Building Competence:  
A Case Study in Competency-based Education

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Abstract

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The purpose of this study was to determine promising practices emerging as a small private not-for-profit university in the greater Seattle, Washington area implements competency-based education programs in a variety of degree areas. This grounded theory case study was conducted to gain insight into what emerging practices are being found to increase student success and completion in a not-for-profit university which has a high non-traditional adult student population. This study takes a grounded theory approach, examining perspectives of faculty, executive leaders, and extensive document review.

The researcher presents and discusses common themes that emerged from the interviews of participants and reviews of public university documents, and explores the positive impact these have on the university, and its programs and students. Also presented are areas of differentiation amongst programs and, while some flexibility is beneficial, the need for overarching structure and guidelines that still exists.

Results of this study indicate that a strong leadership structure is key to university success with implementing competency-based programs. Within this structure, clear guidelines, training, and accountability are essential elements. This study's findings have theoretical implications for university administrators, program leadership, faculty, policy makers, curriculum designers and any others with a vested interest in competency-based education.

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Dedication:

To: Mom & Dad,  
Jason, Shane & Luke  
And Stacey

## **CHAPTER 1**

### **INTRODUCTION TO THE STUDY**

A flurry of pedagogical approaches have emerged in post-secondary education and, while some of these are relatively new, others find their roots in decades-old pedagogical philosophies. For the convenience of discussion, it is helpful to label all of these approaches as “-based approaches.” The most commonly discussed -based approaches are: competency-based education, outcomes-based education, standards-based education, inquiry-based education, and problem-based education. The frequency with which these approaches appear in conversations about higher education instruction and reform gives the false impression that most practitioners actually know what each of these approaches is, or how they contrast against one another. In fact, the modern dilemma faced by many in higher education is that few leaders have a detailed understanding of what each of these approaches are, how these approaches differ from one another, and how any of these approaches might be used to effect pedagogical change and instructional innovation.

In an effort to address this dilemma, this dissertation differentiates among these various emerging pedagogical approaches, discussing how they relate and differ from one another. Then this dissertation explores the relative value associated with implementing any one of these approaches, providing examples of how each of these approaches are being used in post-secondary institutions. A case is made for the value of competency-based education (CBE).

After accomplishing the above goals, this dissertation uses a case study to illustrate ways in which colleges and universities develop, implement, and carry out competency-based programs

(CBE) in order to meet the growing needs of both the college student and corporations today. A premise of this study is the belief that CBE programs that are intentionally developed and implemented, while maintaining a high emphasis on quality of learning, will result in an additional dynamic of learning in higher education that meets the evolving needs of both the student and current work force demands.

### **Importance of Study**

The most valuable aspect of any of the -based approaches is that they place the student at the forefront of his or her education. The primary idea behind all –based approaches is to help the student leverage his or her prior learning and experience to maximize learning and program completion. An emphasis on prior learning and experience has become a major focus in higher education as many adults return to college with the goal of finally completing previously-started degrees, who are changing careers, or seeking new degrees. Huffington Post (2013) reports over 43 million Americans, over the age of 25, have enrolled in college programs having yet to finish. This new type of student is older, working, often having family obligations. Contrast this with a more traditional college student; young, just out of high school and attending full time. Many of today’s college students are balancing multiple responsibilities along with bringing real-life work experience. The traditional, instructor-led, method of classroom instruction often does not meet their needs. Attending lectures Monday through Friday for an hour or two each day is difficult, if not impossible, nor is it practical given that many students today are already working within their field of interest.

Another area of value seen from more current -based education is the greater ability to meet the needs of the current-day workforce. As the economy evolves, there is growing recognition of the importance of a well-educated workforce (Jones & Olswang, 2013; Klein-Collins, 2012).

Employers are looking for employees who not only demonstrate knowledge, but the ability to effectively carry out this knowledge in a diverse workforce situation. A greater emphasis is being placed on critical thinking and the ability to demonstrate knowledge in a diverse array of settings. This brings great value to the knowledge, skills and application we see as the main focus in the -based education formats. With -based education, programs are developing competencies that are specific, building steps students must demonstrate the ability to meet. Competencies are then aligned to larger learning outcomes which relate to program, institution and workforce needs. As students meet the competencies, they achieve the outcomes and demonstrate essential requirements of understanding and abilities within the degree area. Students are provided with the ability to directly implement their learning in real-life situations, and evaluations are based on their ability to successfully carry out the skill needed, rather than the ability to complete an exam on terminology and required readings. As workforce demands increase, so does the competition for jobs. The more prepared students can be for current industry needs, the greater the chances of getting hired or promoted over another candidate. This becomes a win-win for both the student and the company.

### **Purpose of the Study**

The purpose of this study is to examine ways in which colleges and universities can develop, implement, and deliver competency-based programs (CBE) as another viable pedagogical approach to meet the growing dynamics of a changing college student. A premise of this study is the belief that CBE programs that are intentionally developed and implemented, while maintaining a high emphasis on quality of learning, will result in programs that meet the evolving needs of older college students.

The impetus for this study is derived from two broad trends. The first is an increased emphasis from outside corporations for post-secondary institutions to graduate students who can demonstrate extensive knowledge, and have the skills and ability to successfully use that knowledge. The second, and more emphasized in this study, stems from the evolution of the typical college student from young, just out of high school and only attending college, to an older student with more experience, and who is balancing school with other life expectancies.

Chapter 2 provides an extensive literature review, through which it is shown that there is a growing need to restructure post-secondary programs to include a more diversified pedagogical approach in order to better meet the needs of older student populations and the organizations needing to hire them.

### **Overview of the Study**

Using a qualitative case-study approach, this dissertation will examine the essential elements required in order to successfully design, develop, implement and maintain a competency-based program within a post-secondary institution with a large older student population. Using the case study method allows the researcher to gain an in-depth understanding of the phenomenon occurring in a tangible manner. Because competency-based programs are just now emerging in post-secondary education, little research is available on the processes and methodological approaches used by those who are already offering programs through CBE successfully.

In Chapter 2, a literature review provides a historical background of CBE, discusses its use within the K-12 system, indicates why we see such a great emergence of CBE in post-secondary education today, and explores how this is affecting colleges and universities across the nation. Chapter 2 also discusses the importance of CBE in post-secondary institutions to meet the needs of older students and how this impacts the demands of current day workforce. Many recent

publications give strong credentials to implementing CBE in post-secondary as a way to reform education, increase access and ability and graduate students who are better prepared for dynamic workforce needs.

Because little has been published on how CBE education fits within the larger scale of pedagogical approaches to teaching and learning in post-secondary institutions. This has led this researcher to believe the need exists for a case study to draw upon the experience of one institution which is already successfully utilizing CBE in multiple programs and the effects from it.

Chapter 3 sets forth the specific research questions explored through this study, and outlines the case study methodology employed to answer those questions. Chapter 3 also describes the procedures used in this study, outlines the boundaries of the case study, describes the case and study participants, and offers a detailed description of the data collection methods (interviews and document analysis) adopted. Chapter 4 presents the findings, organized into key themes of essential elements needed in program reformation that emerge from the interviews and document reviews completed. Chapter 5 concludes the dissertation with a summary, a description of the implications of the findings, and recommendations for future research.

## **CHAPTER 2**

### **REVIEW OF LITERATURE**

Today’s world is complex and dynamic with changes occurring at rapid rates. Preparing to enter society and the workforce requires a knowledge construct far from traditional. Yet, our colleges and universities, which directly precede this entrance into society, are the last formal learning experience many young adults receive—and this experience is often very traditional in practice. Many post-secondary classrooms still utilize an instructor-led, lecture-memorize method, in which instructors stand at the front of the room and lecture while students are left to internalize what is said. As companies begin to emphasize the desire for dynamic thinkers who are flexible and collaborative, universities are now challenged to pursue different pedagogies in response to the changes in societal expectations of an educated person. “They know that employers are looking for young men and women able to analyze issues, think critically, solve problems, communicate effectively, and take leadership” (Justice, et al, p. 841). It is no longer a matter of what you know that counts, it is also your capacity to think, learn and collaborate as an effective member within society.

Over the past three years we have seen a dramatic shift in higher education practices. Many colleges and universities are implementing programs which give more emphasis on student experience and prior learning. With this has come many new program formats with –based education as part of this movement.

#### Competency-based Education

Competency-based education (CBE) gets its roots from an article by R.W. White in 1959 as a concept for performance motivation. The term later gained greater recognition in 1973 when David McClelland wrote a paper entitled, “Testing for Competence Rather than Intelligence”. This particular approach to teaching is often used for learning more concrete knowledge and

skills and each unit of learning is fine grained rather than broader and is often a smaller component of a larger learning goal or outcome. Learners typically work on one to three competencies at a time and these often build to a larger overarching outcome. Students must demonstrate mastery of each competency before moving on to the next. CBE is largely a student centered approach to learning that places high amounts of control on the learner and his/her ability to demonstrate completion of the competency. This can be accomplished in as little or as much time as the learner feels needed with as little or as much support from a learning coach or mentor. A learning coach or learning mentor is similar to an instructor in the sense that he/she has extensive background knowledge, skills and abilities within the area of study. However, instead of lecturing the information to be learned, the mentor/coach guides the student through the learning through conversations, open-ended questions, and directing the student to various resources.

### Outcomes-based Education

Outcomes-based education (OBE) made its debut in 1994 when William Spady spoke at the American Association of School Administrators. He has since become an authority on the topic with many published articles and speeches on the importance of OBE and how to prepare qualified individuals to successfully contribute to society. OBE is founded on three basic premises:

- All students can learn and succeed, but not all will learn in the same way and in the same amount of time
- Success promotes more success
- Schools control the condition of success

As Spady states, “Outcomes-based Education means clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction and assessment to make sure this learning ultimately happens” (Spady, 1994). A key element with OBE is that the assessment piece is at the end of the learning and relates to a larger, more general statement about the learning, in which the student is to demonstrate the ability to apply the knowledge and skills in an outside, real-life situation.

### Standards-based Education

Standards-based education (SBE) can be traced to Marc Tucker’s work with National Center on Education and the Economy (NCEE) where he created new standards designed to internationally benchmark student performance. These new outcomes were developed out of Spady’s earlier work with OBE. SBE calls for clearly stated standards against which students are measured, as opposed to older measurements against each other. These standards were developed as indicators to the public that the student is able to read, write and complete basic mathematics at a level in which might be productive for a potential employer. These standards were often set as a result of political discussions rather than by educators and became the premise for state-wide testing procedures which measure to what extent students are able to meet the standard set. By 1998 every state had or was in the process of implementing standards in both math and reading for all elementary and secondary schools. The results of these tests led to teacher compensation, retention, bonus pay, or even termination if results indicated low student performance.

### Inquiry-based Education

Inquiry-based education (IBE) became a term developed in the 1960s based off the constructivist theory that knowledge is built from experience and socially based experiences, not through rote memory. Thus, learning is best in group situations and interaction with others. In small groups students are posed with “I wonder” statements or smaller scenarios in which they must explore possible answers or solutions. In this model teachers act more as a guide leading students through a learning experience, rather than lecture what they feel students should learn. IBE is still widely used today in K-12 classrooms within science and social studies.

### Problem-based Education

Problem-based education (PBL) originated in a medical program in the late 1960s as a reaction to students disconnecting with content knowledge and creating disenchantment. In PBL, students are presented with real-life problems that can be solved in multiple ways allowing students to develop a solution they feel is best. Proponents of PBL state it enhances content knowledge while also increasing problem solving skills, critical thinking and collaboration. This method thereby creates students with more attributes sought after by real world employers. Today PBL is still wisely used in social studies, science and mathematics in a great majority of elementary and secondary classrooms.

While all these terms are often used interchangeably both inside and outside of education, they do demonstrate a multitude of similarities and differences. In traditional lecture formats, students endure many hours of seat time listening to lectures given by an instructor who determines what they feel the students should know. Students are then assessed on their ability to recall facts given by the instructor, which may be different from their ability to demonstrate learning and skills accomplished. In any of the -based education theories, this locus of control shifts away from the instructor to the student and his/her needs as a learner. Students increase


ownership over learning by determining which way to obtain the knowledge and content and then how best to demonstrate new learning. Regardless of the type of -based education, there are three components, seen repeatedly in research, having great importance: knowledge, skill and ability. Within each of the –based education philosophies, students continually demonstrate: knowledge of content, skills to implement the new knowledge, and the ability to successfully carry out this demonstration. Figure 1 highlights the differences between -based education and instructor-led education.

Figure 1, Education Comparison:

"Based" Education	Instructor-led
Emphasis on demonstration of learning	Emphasis on recalling of information presented
Student focused	Instructor focused
Completion time varies based on student needs	Completion time set by credit hour
Assessments vary based on student needs	Assessment set by instructor and completed by every student
Enables student to critically analyze own learning	Instructor reports students ability to recall information presented
Based upon current workforce demands	Based upon Instructor preference or set by University
Student participation is active and empowers leadership of their learning	Student participation is passive listening to lectures, completing requirements

Figure 2 illustrates the continuum of instructional pedagogies we now see being implemented in colleges and universities as a way to increase the ability to meet varying student needs.

Figure 2, Education Continuum:

Instructor-based Little/no student voice	Competency-based Strong student voice	Outcomes-based Complete student voice
		
<ul style="list-style-type: none"> <li>• Instructor/program Centered</li> <li>• Completion time designated by credit hour</li> <li>• Instructor sets course schedule</li> <li>• Instructor determined learning targets</li> <li>• Instructor determined delivery of learning</li> <li>• “One shot” learning/demonstration of learning</li> <li>• Focus on knowledge and skills attainment</li> </ul>	<ul style="list-style-type: none"> <li>• Student Centered</li> <li>• Completion time determined by prior knowledge/experience</li> <li>• Student sets course schedule</li> <li>• Student determined learning towards competencies/outcomes</li> <li>• Student determined delivery of learning</li> <li>• “Building blocks” learning/ demonstration of learning</li> <li>• Focus on Knowledge, skills and ability to apply these correctly in a workforce situation</li> </ul>	
<p>Students are told what the instructor will be teaching.</p>	<p>Students are provided milestone steps of learning, called competencies, that directly align to industry needs, they demonstrate their ability to meet</p>	<p>Students are provided with the end result of learning, called outcomes, that derive from industry needs, they demonstrate their ability to meet</p>
<p>The student learns how to start a motor vehicle.</p> <p>The student learns how to drive a motor vehicle from point A to point B.</p>	<p>The student demonstrates the ability to correctly start the engine of a motor vehicle.</p> <p>The student is able to construct a plan to drive a motor vehicle from point A to Point B.</p> <p>The student successfully utilizes turn signals and all appropriate rules of the road when moving from point A to Point B.</p>	<p>The student demonstrates the ability to use a motor vehicle to move from point A to point B.</p>

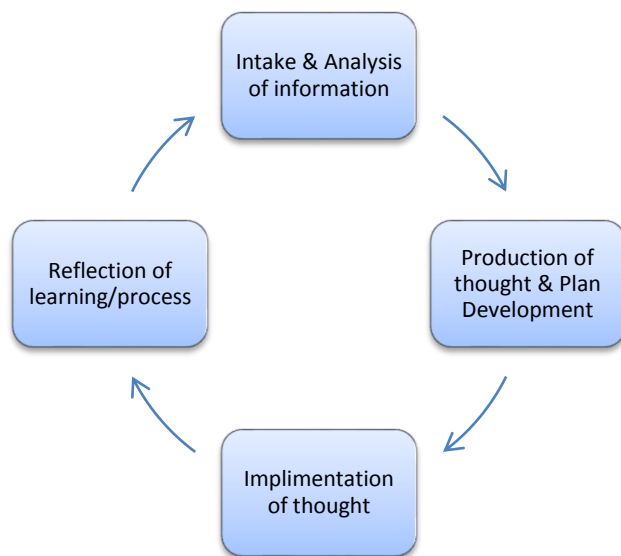
To narrow our focus and gain a deeper understanding of CBE we must start with its philosophical origin. CBE is deeply rooted in the constructivist theory. Piaget believed that humans learn by constructing one logical step after another; Dewey emphasized the importance of learning to be grounded in real life experience, and Constructivists believe that individuals construct their own understanding and knowledge of the world through experiencing things

within the world and reflecting upon those experiences. Vygotsky (1978) adds to this by stating, “Properly organized learning results in mental development and sets in motion a variety of developmental processes that would be impossible apart from learning” (p.90).

CBE strongly promotes self-directed inquiry. For this, the term inquiry refers to seeking knowledge and developing new understanding. By learning through inquiry students become inquirers, developing skills involved in establishing concepts and facts, preparing them to become active researchers and life-long learners. Currently CBE is used more widely in the K-12 system than in the post-secondary system. This is now beginning to change and many post-secondary institutions are starting to use, or at least consider using, CBE as a methodology for teaching as studies indicate it increases student learning, as well as the development of various social and collaborative skills. Having strong social and collaborative skills can increase students’ abilities to act as positive contributing members of society as they will be better able to communicate and work with other individuals in various situations. This researcher uses CBE in multiple Master of Education programs and has noticed an increase in student participation and overall learning. However, equally important to the learning is the increase in ability to collaborate and work effectively with other individuals within the classroom and workforce setting. While the main focus may have been on becoming critical thinkers around given content, I also give attention to the hidden content of students becoming dynamic and flexible thinkers who contribute to a given society in a positive way.

“In addition, active engagement with content putatively results in deeper understanding and greater integration and internalization than traditional didactic, memory-oriented approaches to learning” (Justice, et al, p. 843). These developmental processes are aspects of critical thinking that can greatly increase an individual’s abilities to become a highly contributing member of

society. Critical thinking is a process of acquiring information, analyzing the information, producing a new thought or belief about the information, implementing the new thought, then reflecting on the thought and/or process of learning. Critical thinking is an essential part of CBE as it drives the learning and reflecting that continually occurs throughout. What is important to note here is that with CBE and Constructivist Theory there is no end point to the knowledge. The construction of knowledge is continually evolving and developing as the learner grows and develops. One way to see this process is by a circulatory model:



“To teach is to engage students in learning” (Smith, et al., p. 88). When using CBE the instructor assumes a uniquely active role drastically different from the traditional educator. Rather than standing in front of the class lecturing massive amounts of information for students to memorize and recite back, the instructor is actively guiding students along the learning process, anticipating next steps of learning, in order to provide them with additional research or information to further this learning. Often, when approached by students with questions, instructors use open ended inquiries in response to actively guide them through the thinking process, allowing students to essentially answer their own questions. This practice is also

commonly referred to as teaching within the Zone of Proximal Development (ZPD) from Vygotsky (Vygotsky, 1978, p.86). When implementing the ZPD the teacher is the guiding force within each learning situation, “They are someone who senses what the learner needs and delivers it” (Bruner, p. 69). One way instructors can implement this practice with great success is through the use of scaffolding instruction (Wood, et al, 1976, p. 90). This is where the teacher is continually providing information or directing conversations just beyond the students’ realm of understanding, and then guiding them along to reach and understand this new information. Scaffolding instruction along with open ended questioning are critical steps within the CBE process to further students’ learning and allow them to build the skills needed to become dynamic workforce contributors within society. Friedman et al. (2009) highlights one structure commonly used by professors, which outlines scaffolding with open ended questioning together as:

1. A professor-created realistic, complex, and ambiguous problem or outcome needed;
2. Students, who at the time of receiving the problem/outcome may have insufficient knowledge to solve it on their own;
3. The professional role of the instructor is to guide the learning process; and
4. Through the use of small groups, individual discussions, or targeted research, ensure students solve the problem and/or reach the outcome.

While this process may seem large at first response, it is important to understand that it can range from more complex larger scale scenarios and outcomes in which students actively engage with for extended period of time, to a much smaller scale competency presented for a large or small group discussion. The use of open ended questions as a guide to facilitate discussions creates a strong critical thinking process in which students continually grapple with problem-

solving ideas, which in turn furthers learning and can stimulate greater abilities to critically analyze and solve problems within the workforce. This creates essential skills beneficial for every day contribution within the various societies they interact. Schweitzer and Stephenson, (2008) state it well when they write about the importance of constructivist theory by its desire to, “produce independent analytic thinkers who can function flexibly in the workplace and as prudent citizen decision makers” (p. 578).

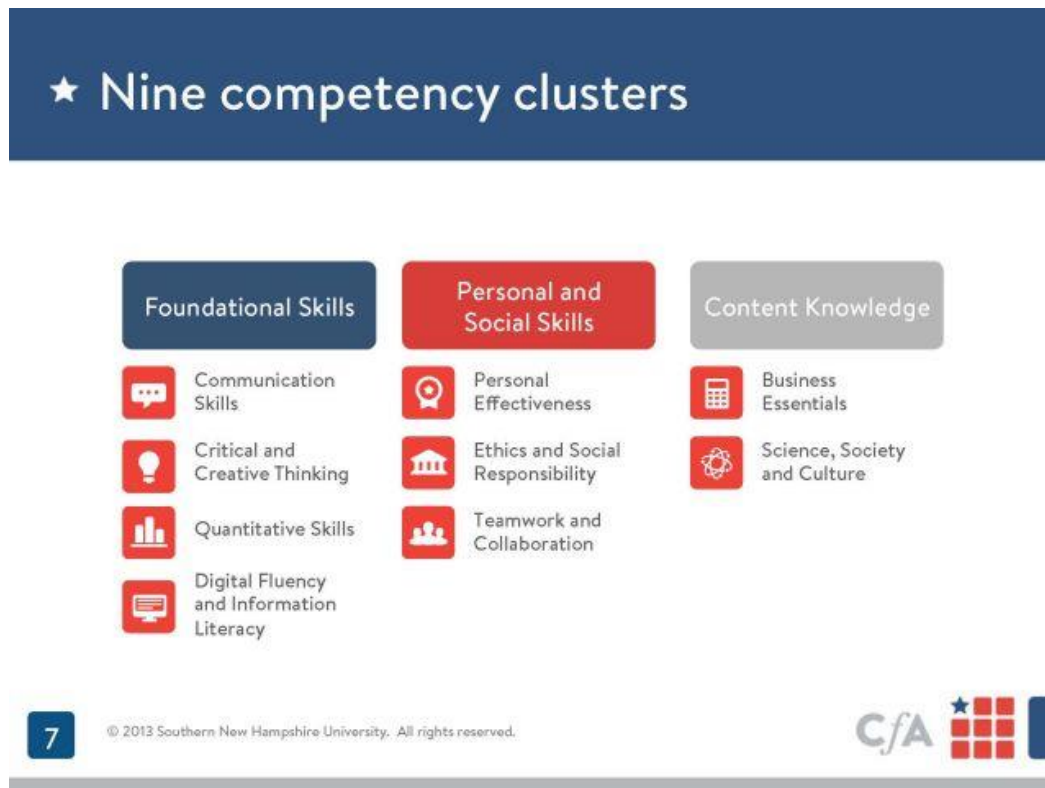
Post-secondary educators have a large responsibility to take students coming out of high school and prepare them to be active contributing members of society. While constructivist theory supports the development of critical thinking that occurs from birth, it is these post-secondary years that the development is most crucial as they are the years directly preceding individuals entering into the mainstream workforce of society. Through the use of CBE, institutions can help increase the knowledge, skills and abilities students will need to be successful in our dynamic workforce environments.

Currently, we hear mostly about two institutions in particular offering Competency-based Education: Southern New Hampshire University with its *College for America* (CfA), and Northern Arizona University (NAU). However, many more are now beginning the process of developing CBE programs due to recent surges in funding and support from the Bill and Melinda Gates Foundation, the Lumina Foundation and The Council for Adult and Experiential Learning (CAEL).

CBE programs, the focus of this dissertation, run in a self-paced, self-directed format in which students demonstrate their ability to meet a given set of competencies successfully. The competencies are based off of three major outcome areas (foundational and content knowledge, personal and social skills, and ability to correctly apply new learning in a workforce setting) the

institution establishes based on current workforce needs. Those three outcome areas are then broken into more defined areas called competencies. Students then demonstrate the ability to meet various competencies listed under each outcome. Figure 3 depicts the Nine Competency clusters set by College for America.

Figure 3:



Students who enroll in these programs pay a flat tuition rate of \$2,500 for six months of unlimited access to competency materials and resources. Once they are registered, students are able to complete as many competencies as possible within the six month time frame. If a student enters the program with extensive prior knowledge and experience, he/she is able to leverage this prior knowledge towards his/her degree one of two ways. In some cases the student can complete a test, known as prior learning assessment (PLA), demonstrating the ability to meet the

competency. If the student passes the PLA, he/she then tests out of the competency and moves on to the next competency. Another way of demonstrating ability is for the student to submit an artifact which demonstrates he/she is already completing that competency in his/her current or past workforce situation. The artifact submitted can range from a power point, project proposal, spreadsheet, report, or any documentation that is acceptable to the University.

Once the student has submitted this evidence of learning, an evaluator will critically assess the artifact or test against a rubric to determine its level of achievement. Rubrics are assessment tools which provide clear and detailed information about the expectations set for meeting the competency. These rubrics give direction to the student about what is expected of their performance in order to meet the competency set. Figure 4 is an example of the competency and rubric from College for America as seen by the student. Figure 4:

## ★ Sample Level 1 Task Demonstrates Mastery of 1-2 Competencies

**COMPETENCIES**

- Can use a spreadsheet to perform a variety of calculations
- Can locate and use information in basic business documents, such as manuals and reports

**OVERVIEW**

For this task, you will locate information in a business report and transfer it into a spreadsheet. Then you will use the spreadsheet to perform calculations. But you will need to be careful – some of the information is missing from the spreadsheet and some of the calculations are inaccurate.

**DIRECTIONS**

You are a new employee at Johnson Landscaping Contractors and Laura, the office manager, needs your help. Barry, the person who had your job before you, quit suddenly – right in the middle of putting together an Excel spreadsheet. Laura would like you to check Barry's work and complete the [spreadsheet](#) he started. You will find the relevant and correct information in the [Quarterly Comparison Report](#). Be sure to look at all the tabs in the spreadsheet.

**Multiple criteria**

CRITERIA	YES	NOT YET
Relevant information from the business document has been identified and entered into spreadsheet		
Figures have been entered accurately into the spreadsheet		
Spreadsheet includes correct formulas		
All calculations are correct		

**Binary**

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Once the student meets each criterion for the task, he/she also meets the competencies assigned to that task. When all criteria are at the “yes” level, then the task is complete, competencies met and the student is able to move forward to the next task or competencies defined.

While this approach indicates benefits to the student, it is important to note the many ways this approach can also benefit the institution. With this approach, institutions can hire Competency Mentors who are experts in the subject matter being covered. Because these experts are guiding learning and not required to conduct numerous hours of lectures and office hours, institutions can adjust remuneration to more accurately reflect the amount of time the Mentors are engaged. In addition to this, there is no need for large lecture halls and classrooms. With decreases in funding nationally, many institutions are finding it more and more challenging to maintain numerous buildings full of classrooms and lecture halls. Since Competency-based programs run exclusively online or with limited in-person time, institutions can save money by not having the upkeep up buildings and facilities that are not in constant use. Another benefit that is of great importance is the ripple effect Competency-based education can create for the institution. When institutions provide programs which focus on workforce demands and increasing student completion rate, they graduate students who are more likely to obtain employment. The more students who obtain employment after graduation, the more successful the institution is seen. This results in an increase in enrollment as students share their success with others. Word of mouth is one of the most proven ways companies and organizations gain increased demands and success. This is no different for post-secondary institutions. When students speak about a great education, and the job they received because of it, others will want to have the same experience.

Although Competency-based education presents many benefits to both the student and institution, it has its critics and areas of concern if not properly addressed. Programs cannot simply take old courses and remove the required assignments to insert student generated demonstration of learning, thinking this is competency-based. Institution and program leaders need to develop a full and complete understanding of the philosophy and goals behind competency-based education and its benefits. Programs will need to change from indicating learning statements to action oriented, applicable competencies in which students have the ability to demonstrate the knowledge and skills acquired, rather than recite terms and readings. Then programs need to ensure these competencies directly align with program and university generated outcomes. Programs will require extensive revising and redeveloping in order to convert older more traditional theories of instruction to a new more revolutionized demonstration of learning. Programs will not be able to convert to a competency-based format overnight and will need to complete many hours of conversations with outside organizations, institutional leaders, program leaders, instructors and students to ensure a high quality relevant program is implemented.

Another concern seen early on with competency-based programs is that students will complete them at such accelerated pace that the amount of true learning is of question. This is a valid concern that the many in post-secondary education, as well as the greater public raise. If students are simply throwing out artifacts and rushing through these competencies, is there any true learning occurring? And more importantly, will the American post-secondary education system become a diploma mill rather than institutions of higher learning? The thought of completing an unlimited amount of competencies in a six month period, as seen with Capella University and Western Governors University, can raise great concerns about the quality and

value of that learning, rightfully so. This concern is one that has brought about many discussions on many higher education boards and social sites such as Daily Lumina News, Edutopia News, and Inside Higher Ed. While it was gaining great amounts of time in the beginning, I believe it is now slowing as both *College for America* and Northern Arizona University have gained recognition from both the Department of Education and their regional accrediting bodies and this support is essential for any college or university to continue to deliver competency-based programs. And now, with such strong support from the Bill and Melinda Gates Foundation providing extensive funding for colleges and universities to collaborate and begin building competency-based education programs, many critics are beginning to give this method of education a second look. In January of 2014, The Lumina Foundation, with support from the Bill and Melinda Gates Foundation, placed a call of proposals for colleges and university across the United States to participate in a Competency-based Education Network. This Network will lead twenty institutions in a two-year study in which leading experts will host ongoing, extensive training on competency-based degree programs with institutions involved.

Over the past three years, competency-based education has emerged with great magnitude into higher education at an accelerated pace. While its onset provided ample amount of critics and concerns, we are now seeing greater support from foundations and organizations to look closely at this new way of teaching and learning as another viable pedagogical approach to meet industry and student needs. Instructors have long known that students learn in many various ways and no single approach will meet the needs of all students at a college or university. Incorporating competency-based in areas of study that support a more student-centered approach, will enable colleges and universities to diversify their instructional techniques and provide

quality alternative educational options for students who already have experience in their field of study.

### **Summary**

Competency-based education has been widely used in K-12 classroom for over three decades. Even now becoming a standard practice nation-wide, as schools move to the Common Core Student Standards for performance. This practice is now emerging into higher education institutions across the nation and with great magnitude. However, still in its infancy and lacking the depth of understanding and research-based, best practices that have occurred in the primary and secondary grades, weakening its credibility and reputation with institutions of higher education and the greater public. Furthermore, institutions in the for-profit sector have exploited CBE and its true identity by offering accelerated programs with mass enrollment as a means of cost cutting procedures and increase revenue. Because of this, CBE has emerged into the higher education sector with great skepticism and critique from educators, students and the general public. But not all institutions are jumping to implement CBE programs for the possible quick return. Some institutions are truly looking at diversifying practices to include more opportunities for learners, especially learners who would not otherwise be able to attend college and earn a degree.

As colleges and universities begin to change programs from instructor-based to a more current competency-based pedagogy, a great shift will need to occur in pedagogical thinking, methodology, assessment procedures, delivery format and instructional practice. It is not a simple revision of current courses to a new delivery. While programs are conducting these changes and developing new CBE programs, the following overarching questions should be kept at the forefront of their development and implementation:

- What best practices are being carried out to ensure quality learning and demonstration of learning occurs, meeting the diverse needs of all students enrolled?
- What design and development processes are being implemented to ensure rigorous curriculum, outcomes and competencies that are clearly defined and articulated?
- What assessment procedures and data collection are carried out to verify students are meeting the outcomes and competencies and are not skating by with minimal effort?

It is through these overarching questions, that I will develop detailed interview questions to specifically explore CBE by conducting in-depth interviews with professionals at a university, currently implementing competency-based programs in a manner that maintains integrity and commitment to a quality education experience. In the next chapter I outline the specific methodological approaches I use in order to answer these questions and more.

It is important to note with this review of literature that credible and high quality publications of CBE are limited at this time and all data incorporated was from professional, scholarly and research-based publications. Currently we see numerous organizations, institutions and individuals completing extensive research on current and developing CBE practices. This researcher has been interviewed and surveyed for many of these, as well as, participates in the Competency-based Education Network funded by The Bill and Melinda Gates Foundation and The Lumina Foundation. Many of these publications are set to release throughout 2014/2015 and will provide a much greater and varied portrait of CBE within post-secondary education. These publications will provide a more extensive look at promising practices for implementing and completing CBE programs within Institutions of Higher Education.

## **CHAPTER 3**

### **METHODOLOGY**

This chapter discusses the methodological approach employed in this study. I include questions developed based on the literature review presented in Chapter 2 and describe the methods used to answer those questions. I also describe the procedures utilized according to case study methodology.

#### **Purpose of Study**

Competency-based education is gaining considerable recognition from both students and employers looking to hire those students. When employers are interested in hiring a student, they do not seek out how many hours the student completed in a lecture hall or how many credits were tied to those hours. What they want is someone who can perform the required tasks to ensure organizational success. A student's competence is of greatest importance. Competency-based education goes far beyond the acquisition of knowledge; it develops the competencies needed to achieve the desired results. When implemented correctly, competency-based programs are of exceptional value because they are student-centered, flexible and provide multiple avenues to demonstrate learning.

While competency-based education has been around for decades, it has only recently experienced a great surge in postsecondary education. Institutions are looking for ways to continue offering courses with less financial output and meet the growing needs of a diverse adult learner population. Competency-based models for program delivery allow institutions to offer courses using mentors to guide students through completion based on student needs rather than instructors who would require students to attend daily lectures, regardless of the students preexisting knowledge and skills. This type of delivery can substantially reduce expenses related

to faculty pay and maintenance of physical classrooms. It also diversifies the learning process, enabling students to complete learning paths that best meet individual needs.

Institutions that offer the competency-based model are positioned to acknowledge the skills a student learns outside of the classroom. This option can benefit students who are entering a program after attaining relevant experience in an employment setting. It also benefits students who are completing a program while working as it enables them to apply the knowledge and skills they are acquiring through the program in their current workforce setting. Recognizing prior work experience ensures that all students receive equal opportunity toward degree completion and omits the possibility of favoritism towards completion of the credit hour over experience gained.

In the spring of 2012, competency-based education received public recognition from Acting Assistant Secretary of the U.S Department of Education, David Bergeron in his “Dear Colleague” letter. In this letter, he provides guidance to institutions who wish to continue receiving Federally Funded Financial Aid for Competency-based and Direct Assessment programs. Bergeron also states, “competency-based approaches to education have the potential for assuring the quality and extent of learning, shortening the times to degree/certificate completion, developing stackable credentials that ease student transitions between school and work, and reducing the overall cost of education for both the career-technical and degree programs” (p. 3-4). Bergeron also recognized the collaborative efforts between the department, accrediting agencies and the higher education community to encourage the use of innovative approaches such as performance-based education. This formal recognition, along with his commitment to collaborate with accreditation and other research bodies to identify promising

practices and gather data to inform future practices is a tremendous step forward in advancing alternative and innovative educational practices.

We now see many institutions of higher education looking to implement competency-based programs in addition to already occurring programs which are more traditional-based. However, due to its recent and accelerated onset, many are struggling with how to implement this new format successfully. This research will include extensive historical document review and in-depth individual interviews with current competency-based leaders to establish common themes, processes and procedures carried out with developing and implementing competency-based programs at colleges and universities. These discoveries will have a great impact as they will establish common and beneficial practices for other institutions of higher education to consider while they begin to develop and implement programs in a competency-based format.

### **Research Questions**

The research questions that guide this study include the following derived from the overarching questions presented in chapter 2:

- When looking at implementing a competency-based education format within an institution of higher education, what processes and procedures did program officials implement as they transition from instructor-led to competency-based?
  - What led programs to feel they needed competency-based education?
  - Who were participants involved in the decision making?
  - What process did programs complete to transition from instructor-led to competency-based?

- What best practices are being carried out to ensure quality learning and demonstration of learning occurs, meeting the diverse needs of all students enrolled?
- What design and development processes are being implemented to ensure rigorous curriculum, outcomes and competencies that are clearly defined and articulated?
  - What design procedures were used?
  - Who are key stakeholders involved in the design and development?
  - Were industry experts included or consulted? What was extend of their inclusion?
- What assessment procedures and data collection are carried out to verify students are meeting the competencies set and not skating by with minimal effort?
  - How is assessment of student learning carried out?
  - How are programs defining and measuring student success?
  - How are programs defining and measuring program success?
  - How will programs know if CBE is effective and meets student, program, industry needs?
  - What measures will they implement for collecting and reviewing data?

### **Study Design**

A Case Study is an in-depth description and analysis of a bounded system (Merriam, 2009). This case study will carry out through a grounded theory design. Because we currently see very few Universities receiving support from the Department of Education to carry out true competency-based programs (to date there are only two, while many others offer variations tying learning back to credit hours), this research is limited in its possibilities for participants. As

mentioned, there are a great number of colleges and universities looking to implement competency-based programs in the near future, however, no research to date indicates the current status of programs already delivering competency-based education and processes/procedures completed for implementing competency-based programs. All institutions currently offering CBE programs are either new and have not had opportunities to collect longitudinal data, or have modified current programs with CBE philosophies to deliver a variation of CBE in order to remain compliant with regional accreditation requirements. So for a true delivery of competencies not tied back to credit hours, we have two institutions with current offerings.

Case studies allow the researcher to, “illuminate a particular situation, to get a close (i.e., in-depth and first-hand) understanding of it” (Yin, 2006). Grounded Theory will be the primary method as it is a theory that emerges from, or is grounded in the data (Merriam, 2009). This research will be particularly useful as it will give rich detailed descriptions of competency-based education, its history, origins, current day emergence in higher education and begin to establish procedures and processes for those looking to begin designing and implementing competency-based education at their institutions.

Through semi-structured interviews and document collection and review, this researcher gathers data on the processes and procedures that were carried out at City University of Seattle while designing and implementing a competency-based program. City University is a viable institution to research as it:

1. Has both Regional Accreditation and Federal Financial Aid support through the Department of Education;
2. Is a small, private, not for-profit university, implanting CBE programs to better meet student needs rather than as a for profit measure;

3. Has a growing diverse, non-traditional student base and looking to increase offerings to increase opportunities for diverse and first generation students, and;
4. CBE directly aligns with the mission and values set and upheld by City University of Seattle, which will be discussed in greater detail later in this chapter.

A main rationale guiding this researcher's selection of City University is its reasoning for implementing competency-based programs. Unlike many institutions, which look to increase profits, and have students graduate at accelerated rates, City University was actively seeking ways in which it could better meet the needs of its large non-traditional, adult student population, many of which are first generation and/or international students. This is important as many institutions within higher education are now beginning to re-examine current day instructional delivery methods in order to better meet the increasingly diverse array of adult student needs, as they are the quickest growing population in Higher Education.

### **Academic Model & University History**

Established in 1973 and earning full Regional accreditation in 1978, City University of Seattle (CityU) – a private nonprofit university – has been changing lives for good by offering a high quality and relevant education to anyone with the desire to learn. During its 40-year history, CityU has engaged more than 50,000 graduates from around the world through its online and onsite degree programs.

### **MISSION**

To change lives for good by offering high quality and relevant lifelong education to anyone with the desire to learn

## VISION

Education access worldwide (a network of partners and programs on-site and/or on-line)

## VALUES

- **Flexibility:** we design and deliver programs and services to be convenient to students
- **Accessibility:** we provide educational opportunities to anyone, anywhere
- **Innovation:** we continually create new educational opportunities
- **Relevance:** what we teach today can be applied tomorrow
- **Global:** we act local but think global

CityU's Academic Model includes major components that align with its mission and describe the dimensions of a CityU education: a focus on student learning, the use of professional-practitioner faculty, ensuring curricular relevance to the workplace, service to students, accessibility, and responsiveness. The Academic Model provides a framework for ensuring that learning experiences are designed to support clearly articulated outcomes at the course, program, and institutional levels. Educational experiences are carefully designed by faculty to encourage self-directed learning within an appropriately defined structure of expectations. With the focus on applying theory to practical experience, learning activities form explicit links among the crucial abilities of an educated professional: critical thinking, reflection, and ethical practice. Multiple paths to demonstrating each outcome are available to learners as appropriate. Students are actively encouraged to define and take responsibility for their own contributions to the learning process, with the understanding that their engagement is critical for substantive learning to take place.

All instructor-based degree programs are designed around a series of specific and actionable course outcomes leading up to program outcomes, measuring progress on three

different levels of learning: course, program and university. The Academic Model and corresponding Philosophy of Academic Assessment provide the conceptual framework and basis upon which program faculty have developed and/or refined the means for gathering direct evidence of student learning. This process includes identifying learning outcomes for each program, aligning CityU Learning Goals (CULG) to the program outcomes (PO), and constructing course outcomes (CO) of student learning that provide evidence of achievement for each outcome, and determining the courses in which those reside. A curriculum map outlines the direct thread indicating which CULG, PO and COs are aligned. Figure 1 demonstrates this alignment.

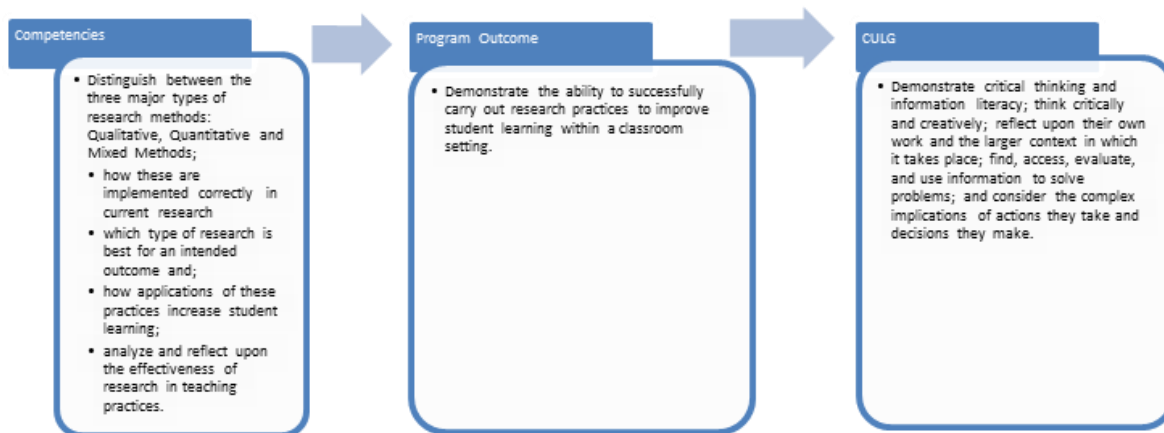
Figure 1: University Alignment



The program design process at CityU is consistent across the university. It is a centralized process that is founded on three levels of outcomes. For each program, there is a list of demonstrable, action-oriented program outcomes that indicate what the student should be able to “do” upon successful completion of the program. These action-oriented outcomes also incorporate and are founded upon theory-based knowledge that is integral to the successful demonstration of program skills. The second set of outcomes, on which all university programs are founded, are the six institutional learning outcomes known as the City University Learning Goals (CULGs). Lastly, each program is broken into a number of courses containing explicit

course outcomes providing students with milestone steps of learning towards program outcomes and learning goals. In the Competency-based programs, the third level contains explicit competencies. These competencies are completed through learning blocks varying in size and amount of competencies based on content covered. In each learning block, students are provided multiple opportunities to demonstrate competence towards outcomes. Figure 2 demonstrates the alignment of competencies to program outcomes to a university learning goal.

Figure 2: Competency Alignment



City University’s diverse delivery models gives students whose paths to higher education might include long periods of time away from school the chance to show what they can do in class and in practicum, without preventing them from showing those talents by applying early admission filters. Instead, students are required to demonstrate learning through capstones, major projects, internships, examinations, and other assessments to ensure they exit with the requisite skills, capabilities, and knowledge. This mode of operation reflects the explicit values CityU espouses. It is flexible in both the design and delivery of programs and services to be convenient to students. It is accessible by providing educational opportunities to anyone, anywhere. It is **innovative** through continually creating new educational opportunities. It is **relevant**, ensuring

what is taught today can be applied tomorrow. And it is **global** in the access it provides, the integration of its programs worldwide, and the **mobility** it provides inside and outside the classroom (City University of Seattle, Accreditation Report, NWCCU, 2010).

City University of Seattle has been engaged in learning outcomes assessment for the better part of the last ten years. During that time, it has articulated and refined a comprehensive structure for learning outcomes assessment that increases transparency and accountability for student learning. CityU's approach to student learning is based on four questions:

1. What does CityU want students to learn?
2. How does CityU enable students to master that learning?
3. How does CityU assess student learning?
4. How does CityU use the results of assessment to enhance future success for its students?

CityU's Academic Model, approved in spring 2005, includes major components that align with CityU's mission and describe the dimensions of a CityU education: a focus on student learning, the use of professional practitioner-faculty, ensuring curricular relevance to the workplace, service to students, accessibility, and responsiveness.

The Academic Model provides a framework for ensuring that learning experiences are designed to support clearly articulated outcomes at the course/learning block, program, and institutional levels. Educational experiences are carefully designed by faculty to encourage self-directed learning within an appropriately defined structure of expectations. With the focus on applying theory to practical experience, learning activities form explicit links among the crucial abilities of an educated professional: critical thinking, reflection, and ethical practice. Multiple paths to demonstrating each competency are available to learners as appropriate. Students are actively encouraged to define and take responsibility for their own contributions to the learning

process, with the understanding that their engagement is critical for substantive learning to take place.

While CityU has been innovative with its development of programs, it has also been at the forefront of developing and offering multiple delivery modes. In 2005, CityU was one of the first institutions within Washington state to offer mixed-mode and fully online programs. Offering fully online programs enabled CityU to once again, fulfill its mission by increasing opportunities for learning.

Because of its founding principles, mission and values, CityU has been a frontrunner in employing innovative approaches and opening access to anyone with a desire to learn. Developing and implementing competency-based programs in 2012 was a natural step in the University's evolutionary cycle. One in which they anticipate great growth in the coming years as more adults return to complete degrees. Current research indicates over 40% of college students are over the age of 24. With the rise of adult learners returning to complete degrees or earn additional degrees, educational offerings must adapt to meet the diverse needs they bring. Focusing on demonstration of learning rather than seat time will diversify instruction, better meet individual needs, increase degree completion and better prepare individuals for current workforce demands.

Since its conception in 1973, CityU has held strong to its mission ensuring every evolutionary step directly aligns with providing high quality instruction to anyone with a desire to learn. Started by a husband and wife team, who saw early on the challenges that adult learners faced when returning to complete a degree, or had to start a degree program late due to family and/or financial circumstances which delayed their educational progress. It was the growing number of adults who began to enter post-secondary institutions with some now prior learning

experience from working within the industry before starting college, rather than starting right out of high school, that led them to begin building City University. A University which started by offering classes in the evenings and weekends to accommodate working adults. As the demand for this new type of education grew, so did CityU, increasing its programs and offerings to include online learning. This move to online learning was the first seen in Washington state and for many other states throughout the nation, once again increasing opportunity for those with a desire to learn. With online learning students who lived further away from campus could now access an education without having to make long trips in for class sessions. Students with disabilities and/or struggled to attend classes on campus, could now access learning from home. And students who had to balance caring for family, work, and other commitments, could now begin attending courses through online programs and complete degrees that were once unattainable.

In 2005 CityU completed a major course and program redesign based on, at the time, current research indicating the multiple benefits of courses with outcomes rather than learning statements. At that time many instructors would state what they would teach and topics in which they would lecture on, not what the student was expected to learn. The focus was on time spent in class and not amount of content learned. CityU completed program and course redesigns switching all learning statements to active outcomes, indicating what students were expected to demonstrate they had learned, rather than what the instructor taught. For example:

A Learning Statement	A Learning Outcome
This course will cover content explaining how to properly change the tire of a motor vehicle.	By the end of the course, the student will demonstrate the ability to change the tire of a motor vehicle.

<p>In this course, the instructor will cover terminology and steps needed to create a project management plan.</p>	<p>Students demonstrate knowledge, skills and ability to effectively create and implement a project management plan in a real-life situation.</p>
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This switch from input-based to outcomes-based shifted the focus of learning away from the instructor as the center of learning to the student becoming the center of their own learning. It shifted the locus of control to the student empowering them to start making valuable decisions about their learning and demonstration of it. This again fits directly into CityU’s mission of changing lives for good.

With outcomes already set for each course and program, it was a natural fit when the sudden and mass emergence of CBE occurred in 2012. While many institutions immediately struggled with understanding CBE and how it could possibly fit in post-secondary education, CityU saw how it could provide another alternate avenue to degree completion, benefitting the non-traditional student, yet again. It is through this trajectory of evolution that City University of Seattle is seen as an excellent case study representative for looking at the logistical characteristics of implementing CBE programs, to benefit non-traditional students in post-secondary institutions.

Another reason City University of Seattle is an excellent case study representative, is because of its Carnegie classification. It is a small non-profit institution who can provide a reputable and replicable case study better matching other institutions across the United States. The institutions who currently receive most the media around CBE program are larger for profits with extensive financial backing from investors. It is this financial resource which enables them

to pay great amounts for outside resources such as, designers and developers to create and carry out CBE programs. This is not comparable for most of post-secondary across our nation. Most institutions of higher education are strapped to tight budgetary restrictions and it is not the norm to hire out as greatly as we've currently seen. Using a case study site such as CityU, with whom has designed and developed CBE programs from within, in consultation with outside experts, creates a more replicable study, increasing the possibility to further benefit additional institutions across our nation.

### **Sample Selection**

Because competency-based programs are just emerging into higher education as a valid way to meet increasingly diverse student needs, the sample in which a researcher can draw from is limited. Especially when wanting to research a reputable university which is not a for-profit entity. Because of a limited sample selection, this case study will employ multiple methods of triangulation of data discussed above to ensure validity and reliability (data sources discussed in greater detail below). For this research, three competency-based programs from City University of Seattle were specifically selected:

1. The Bachelor of Arts in Management (BAM) program was selected because it is an undergraduate program in the School of Business.
2. The Master of Education (MED) program was selected because it involves practicing teachers who come to the program with varied amounts of workforce experience and are looking to directly apply learning in their current teaching situations.
3. The Master in Teaching (MIT) program was selected because it is a graduate program for adults who already have a BA degree and returning to gain a teaching certificate and are often changing fields of work.

Each of these programs offers a distinct group of students which previous research indicates benefit most from competency-based education programs- adults returning to school to earn additional degrees (MED), Adults returning to school for a career changing degree (MIT) and adults returning to school to complete an unfinished degree (BAM). By choosing these programs I am using the target audience that competency-based education is designed to meet the needs of.

### **Participants**

For this study the participants come from multiple areas and level of responsibility within the University. These include: 1) university leaders, such as: Provost, Dean, Program Director, Program Coordinators, Curriculum Developers, any member who had an integral part with the decision to implement competency-based education; and 2) instructors, mentors, assessors, librarians, any individuals who are actively carrying out competency-based programs and courses on a daily basis. It is of extreme importance to have representation from all aspects involved with competency-based education to fully develop a rich descriptive representation of what and how it really is occurring in order to then present a current and developing theory.

### **Data Sources**

As mentioned earlier, this researcher employs multiple methods for data collection: individual interviews, participant observation and document review.

The major pieces of evidence are derived from several semi-structured interviews with university leaders, program leaders and instructors. These were first conducted on-site at City University. Several follow-up conversations were had, as needed, via telephone. Through conducting semi-structured interviews, I gathered rich insight, explanations, as well as personal viewpoints into processes and procedures that occurred leading to the decision to create

competency-based programs and then implementing them. I asked questions that centered around how the decisions were made and who was involved with making key decisions and implementation of those. Interview questions followed an inductive approach. The inductive approach focussed on the process of generating theory rather than a particular theoretical content (Brenner, 2006).

I also participated in every possible opportunity provided to engage with participants. This included, but was not limited to, meetings, discussions, planning sessions and seminars. Participant observation was also key as it provided the researcher an opportunity to learn firsthand how the actions of research participants correspond to their words (Glesne, 2011). Participant observation allowed me as the researcher to gain a deeper experience, and allowed participants an ability to interact with me more, which also increased participants' trust.

Lastly, extensive document review allowed me to gain a deeper understanding of the processes which occurred before my arrival. This review included various research documents utilized by City University for their research, meeting minutes, policy documents, memorandums, and various communications delivered through email or paper. Document review is an important aspect of qualitative research as it provides the researcher with historical, demographic, and sometimes personal information unavailable from other sources (Glesne, 2011). Completing document reviews before interviews can also help guide the interview questions and allow the researcher to make any needed adjustments before conducting interviews.

From data collected through semi-structured individual interviews, participant observation, and document collection, I was then able to use categorical aggregation to establish themes and/or patterns to describe in great detail presenting an in-depth picture of the processes

which have been completed. All of the data collected and findings were shared with City University and research participants, as an important validity measure that allowed member checking to be employed. Using multiple investigators, sources of data and data collection methods, along with member checks increased validity and reliability. This was important in this case study as randomized sampling was not possible.

It is important to indicate that I obtained the interviewees' consent at all times. I digitally recorded each individual interview. Upon completion of recording the interviews, the interviews were transcribed and each participant was given a pseudonym to ensure confidentiality. All audio recordings were destroyed upon being transcribed.

The interviews were analyzed utilizing a basic qualitative analysis methodology (Creswell, 2009). Specifically, the interviews were coded for emergent themes. Essentially, these themes were processes, procedures, and communication that occurred while City University began to research, develop and implanted their competency-based programs.

### **Study Sequence and Timing**

Once this research received approval from the Institutional Review Board, an in-person conversation with Dr. Olswang, my direct contact at City University, occurred to determine when was best for me to complete my study. I wanted to ensure I was able to spend multiple weeks completing my interviews at the university and it was crucial to indicate which days they felt were best for me to employ my research. After the dates were set for my in-person research, I scheduled the interviews based upon the participants' availability and preference. The approximate time frame for conducting interviews was throughout the month of June, 2014, with any follow interviews scheduled as immediately as possible within the month of June.

## **CHAPTER 4**

### **DATA ANALYSIS**

The purpose of this study was to discover and compile promising practices emerging from an institution, which is developing and implementing competency-based education programs, to produce a document in which other institutions of higher education could utilize when considering adding competency-based education programs. Through extensive document review and interviews conducted with teaching faculty, administrative faculty, and executive leadership, four major themes have emerged. These themes: support versus leadership, understanding and training, program development, and student focus will be discussed and analyzed within this chapter.

#### **Support VS Leadership**

Unanimously, each interviewee stated that they felt great amount of support university-wide for exploring and developing CBE programs. There was a great amount of contentment with how they felt the university had publically spoke to supporting CBE and the development of it institutionally-wide. It has been publicized at both university-wide meetings, as well as in department-wide meetings on numerous occasions. Support and encouragement from all levels within the institution was seen and felt by all interviewees. It is clear this institution values CBE and the development and implementation of it with any program which feels it would like to institute it.

When asked who they felt were leaders within the institution, the responses centered around Program Directors, the Director of Performance-based Programs in the School of Education and Deans being at the forefront of the of the responses. These are all middle-level

supervisors with whom hold the positions which directly oversee programs within their schools and their operations, yet do not have executive privileges for institutional-wide decisions.

Respondent	Role	Response
Adlai	Administrative Faculty Teaching Faculty	Program Director, TCP Director, PBE Programs Director, SPED Programs Dean, ASOE
Jane	Administrative Faculty	VP, Student Services
Tiffany	Administrative Faculty	Dean, ASOE Director, PBE Programs Director, PBE MIT Teaching Faculty
Dr. X	Administrative Faculty Teaching Faculty	Director, BAM Director, PBE Programs Dean, SOM
Sarah	Teaching Faculty Administrative Faculty	Support from: Director, PBE Programs Director, BAM Director, Institute of Technology
Meghan	Teaching Faculty	Director, PBE Programs Dean
Stephanie	Executive Leadership	VP, Student Services

		Dean, SOM Associate Dean, SOM Director, BAM Faculty, MIT & MED
Amanda	Executive Leadership	Program Directors “Program Folks”

The interviewees’ responses are perhaps because these are the direct supervisors of those implementing CBE programs and with whom they have the greatest contact with on a daily basis. It is essential for those who are directly supervising anyone developing and implementing a new program to actively engage with the daily needs in order to ensure forward progress. However, noticeably absent from the responses was anyone with a leadership role institution-wide. Initially, none of the responses included any leadership beyond the Deans until further probing by the researcher, at this point one respondent included the VP of Student Services and another respondent added:

I guess it would be the Deans and the Provost and that- that- they are leading because they want to get there, not necessarily because they know where there is (Response from Administrative and Teaching Faculty).

Most interestingly, one participant responded with:

There isn’t necessarily a clear leader or person in charge of it, so um, I feel like I’ve gotten a lot of support from the Director of Performance-based Programs, Director of BA in Management and some from the Director of the Technology Institute... but not

institutional-wide. There is support from above for competency-based, but not necessarily leadership on competency-based from above. There is dictum without direction

(Response from Administrative Faculty).

Another interviewee spoke how her becoming involved was a result from a partnership the Vice President of Student Services and that the leadership came down from the top in this partnership that was created with a major local corporation:

It's worked its way down from the top, so in trying to prepare a proposal for the company, there was a lot of brainstorming done at the executive team level, so I would suggest they surfaced the idea, the concept. Then through the team it came to the Dean of the School of Management who then starting trying to give it some shape and form

(Response from Administrative Faculty).

It became clear with the responses that programs were carrying out CBE in a wide variety of formats with multiple pedagogical reasoning behind them. While all respondents appreciated the great flexibility and openness with the design and development of CBE programs, many also spoke to the need for a solid structure with leadership and a point person they could go to for knowledge, guidance and help with the carry out. Many would really like to see a position of leadership and a person they could rely on to ask questions, seek guidance from, look to for further development and regulate practices to ensure quality:

I feel tremendous support to do CBE and what's nice is the top tier is very open to us doing that, but nobody controls it. It's each program for themselves for doing it. Which is cool because then you can do what you want, but hard because you're, um, not sure what to do (Response from Teaching faculty).

This was an interesting area as each responded agree the openness is important as it empowers them to design programs which differentiate from each other to best meet student needs. Just as with traditional educational practices, the needs of students in an Engineering program are different of those in an English program and therefor, courses and instruction have differences between them. However, they also have some very distinct commonalities which have evolved over time and act as an assurance to the University, the accreditors and the general public, that this course and program have demonstrated some standard of quality and accountability:

It has been really nice to have so much openness to teach anyway we feel is best for this type of program. We have had a lot of leeway and ability to try new things. It's been good to try new things (Response from Teaching Faculty).

So while there is a need for some openness and flexibility to design and implement programs that best meet student needs in that content area, there is also a need for some structural parameters within which programs can operate to avoid extreme differences and maintain University compliance. Having a strong leadership structure, one in which includes a person to direct the evolution and implementation of such programs university-wide will not only greatly assist those actively involved, it will also ensure clear and consistent information delivered throughout the institution which is instrumental in developing and delivering new programs.

### **Understanding and Training**

The need for understanding was greatly emphasized by each respondent. As the researcher, I asked each interviewee how they defined and explained CBE and all of them had some commonalities to their answers.

Respondent	Definition

Adlai	I would define it as being premised on the idea that we lay out the outcomes and expectations standards of what candidates need to meet, and then we facilitate and assist our candidates in meeting those standards.
Jane	A student's ability to demonstrate what they can do. To demonstrate competency as defined by some set of criteria. But competence in what is the real question.
Tiffany	An opportunity for students to demonstrate what they already know or have chosen to learn on their own. It is not related to seat time or instructor expectation.
Dr. X	Focusing on the students, uh, what the student has learned and achieved rather than how long the student has sat in the classroom. You need to have assessments that you can see that the student has actually accomplished the learning- that you want them to do.
Sarah	I wish I could define CBE. I think that is the million dollar question. I think the best definition I've seen for CBE is if you're looking at content and a time, in typical education, time is fixed and content is the best you can. In CBE content is fixed and time is the best you can do.
Meghan	In CBE the student has control of their learning without the constraints of the instructor. We provide the competencies they must meet and the student submits learning towards those. It is based on learning not listening. Based on ability not seat time.

Stephanie	A structure by which students in a self-paced medium are able to show that they have mastered the material by documenting success in identified outcomes. They can use whatever materials or experiences they want to bring to their learning, we call them learning objects. But they must show the same outcomes as any student in any other course taught in a regular didactic or other format.
Amanda	Anytime the student is self-directed, is able to draw on experiences that they're currently having or experiencing, whether learning the materials or applying the materials and to me, it's the application component that is most important. So it's really the opportunity for the student to demonstrate what they learned or are learning without traditional bounds of seats, instructor-led. So it's really the combination of self-directed and more important, students able to immediately demonstrate what they know or what they've learned in an application format without all the traditional trappings.

While it might not have been in their direct definitions, at some point within the conversation, everyone spoke about how CBE was not tied to seat time and was tied to the student's ability to complete competencies:

Ideally you have your program and it's based, not on a time basis but an achievement basis (Response from Administrative & Teaching Faculty).

While there is the want for more leadership and an expert they can go to for questions and training, it was interesting to this researcher how all but one participant had quite similar definitions. All but one, articulated that CBE was based on the student. The student demonstrates the ability to meet the competencies set, the student completes learning in a format that best meets his/her needs, the best learning resources, the best time for learning, the best place for learning, the format of CBE allows the student to best determine what learning path will be most successful for them. One respondent stated:

Students are able to immediately demonstrate what they know or what they've learned in an application format without all the traditional trappings (Response from Executive Leadership).

Another responded correlated with this, with the statement of:

It focuses on the student, what the student has learned and achieved rather than how long the student sat in a classroom (Response from Teaching Faculty).

So quite clearly there is the ability to provide some definition of CBE, however, the desire for a true understanding of it as a promising practice within Higher Education is well sought after amongst those interviewed. Each participant interviewed spoke to understanding as a key element and that one must truly understand CBE to support it. It is clear those involved with CBE programs must fully understand the pedagogical practice of it in order to embrace it and actively carry it out. One responded stated:

It takes time to shift the focus of learning from what the instructor tells the students to learn, to what the student *shows* they have learned. That is, what occurs with CBE programs and the learning is, *not artificial, it's actual* (Response from Administrative Faculty).

All respondents below the executive level stated they want further training and welcome any opportunities to develop a better understanding of what CBE programs encompass beyond the general perception of it being about learning not seat time. One interviewee spoke to how, “once people understand it they can fully embrace it.” She then continued sharing how a particular individual within the University was pretty resistant against CBE programs in the beginning because he did not understand the concept or the benefit this type of education can have for a particular set of students. It wasn’t until he fully understood it that he could be a supporter of it. “Now, he fully embraces it, ‘cause he gets it.” Moving away from traditional courses where the instructor leads all aspects of the learning to a competency-based format where the student becomes the leader of the learning, really requires a significant shift in pedagogical thinking and practice. Not everyone can embrace this and it is important to recognize this. For those who do, developing a strong understand of all aspects involved, far beyond reciting a definition, is essential for success.

Each respondent stated that one of the biggest challenges they face with CBE is understanding. This understanding is not limited to themselves individually, and includes the understanding of instructors, students, other departments and the general public:

One of the handicaps that we’ve had here at CityU is that the vision of what CBE can be has not been, it isn’t there and it isn’t well articulated for the most part because for one thing most people don’t have real experience with it and see what Western Governors is doing and that is not really an entirely competency-based thing (Response from Administrative Faculty).

Another participant states:

There's a real lack of focus and honestly, a lack of clear definition about what CBE is or what it's going to mean for CityU and therefore lack of understanding or how to do it (Response from Administrative and Teaching Faculty).

And a third interviewed stated:

A challenge we face is a lack of understanding of what it means to be competency-based, performance-based, standards-based, that the idea you must meet standards in each of the outcomes that we say is essential.

Institutions will need to provide clear and consistent training in both formal and informal formats to ensure that all individuals involved develop a strong understanding of, not only the pedagogical and academic aspects of CBE programs, but in addition, the business aspects of CBE programs and how each of these impacts each other. For example, traditional courses follow a set schedule in which the Department of Education uses for disbursement of Federal Financial Aid (FFA). A traditional quarter is set at ten weeks and at the end of ten weeks when the student completes the requirements, they move on to the next course and receive the next allotment. Since CBE programs do not have time limitations, students may move through at an accelerated pace or a decelerated pace, not fitting the traditional ten week timeframe required. It is essential that those working with CBE programs understand how FFA impacts a student's ability to complete the program. This is why it is crucial for those involved with CBE programs have an understanding of the pedagogical aspects of this learning, as well as, a strong sense of the business and technical aspects as well.

Another area for further development and training arose with program development. Those involved with CBE at CityU have expressed the desire for further training on how to write competencies, outcomes and align them to each other and University learning goals to ensure

learning. Many felt there would be great benefit for training on writing the competencies, outcomes and quality rubrics to use with the assessment of candidates learning.

With such a strong need for clear and deep understanding, well established and continual trainings are key to the success of CBE programs. Through these trainings participants can gain a strong sense of how the CBE programs are developed, which populations they serve, why the CBE format, in what manner the programs are carried out and by what means CBE interact with various other departments within the institution. It is also important that training is institutional-wide and multiple trainings are offered for each population group. For example, students need training on how the learning will occur, who they contact for help, what processes they must follow for completion, to name a few. Instructors need ample amounts of training so they can develop strong pedagogical theory around competencies and how students can demonstrate their learning towards them; how to facilitate learning rather than instruct it and what they look for when guiding the learning process. It is a significant shift from the traditional methods of teaching content and requires a significant amount of leadership and training to help those who will have the most contact with students throughout the program:

Moving from instructor to facilitator was a challenge. A big challenge and still is. And, I am not sure any of our faculty is fully there yet. I think we create a lot of conversations amongst ourselves, within our program meetings about what to do, but I don't think any of us *really* honestly know what to do. It is nice to have the Director for PBE [Performance-based Education] programs who is flexible and allows us to learn as we continue forward. That's helpful to have, but training would be really nice. Training outside of just our program (Response from Teaching Faculty).

Another respondent also stated:

I think it's a challenge because a lot of faculty will tend to fall back on their traditional class trappings. And it's not so much that they don't fully get it that they work with adults and they can demonstrate it [learning] and okay, I get that, but then they put the components together, they start to think of assignments because they always have (Response from Executive Faculty).

Having a solid and institutional-wide training and development plan will have a great amount of positive impact on all individuals involved. Institutions need to have on-going training in both formal and informal venues to ensure a wide variety of opportunities exist. It is through these in which valuable conversations and learning can occur and transform thinking for program leaders, designers, instructors, students and all individuals involved with CBE programs.

### **Program Development**

In Chapter 2 a complete review of the origins and driving theories behind CBE gave insight regarding its historical foundation and development through educational theory. It also showcased how two other institutions have implemented and are now carrying out CBE programs. However, throughout extensive university document research, it became apparent that City University has purposefully designed its programs differently. In part because of its own historical development over time, but also based on solid input from various stakeholders both inside and outside of the institution. Thus, ensuring their development and program delivery is high quality and directly responsive to student needs.

At City University programs were designed to align from university learning goals, to program outcomes to course objectives. This intentional alignment enables students to clearly see how their learning directly ties to program and university standards and how these standards tie to outside industry standards. For each course, students can see what the course objectives

are, how these connect to program outcomes and how those program outcomes connect to a particular University learning goal. Having programs and courses in an outcomes focused format provided an organic evolution to CBE.

As departments begin to take existing programs and develop them into a CBE format it became immediately obvious how close they already were to offering competency-based courses. While each program completed the transition on its own, meaning, each program transitioned with its own team of experts and it was not a single team led transition as we see with College for America and Northern Arizona. At both those institutions, a single team of individuals and consultants completed the development for all programs offered in the CBE format. At City University each program created a team from individuals already leading the program along with outside industry experts. Each person involved had extensive knowledge and experience within the field of study. Team members include Program Leadership, Instructors, Content Experts, Students, and Industry Experts.

In the traditional program, the alignment structure was as follows:



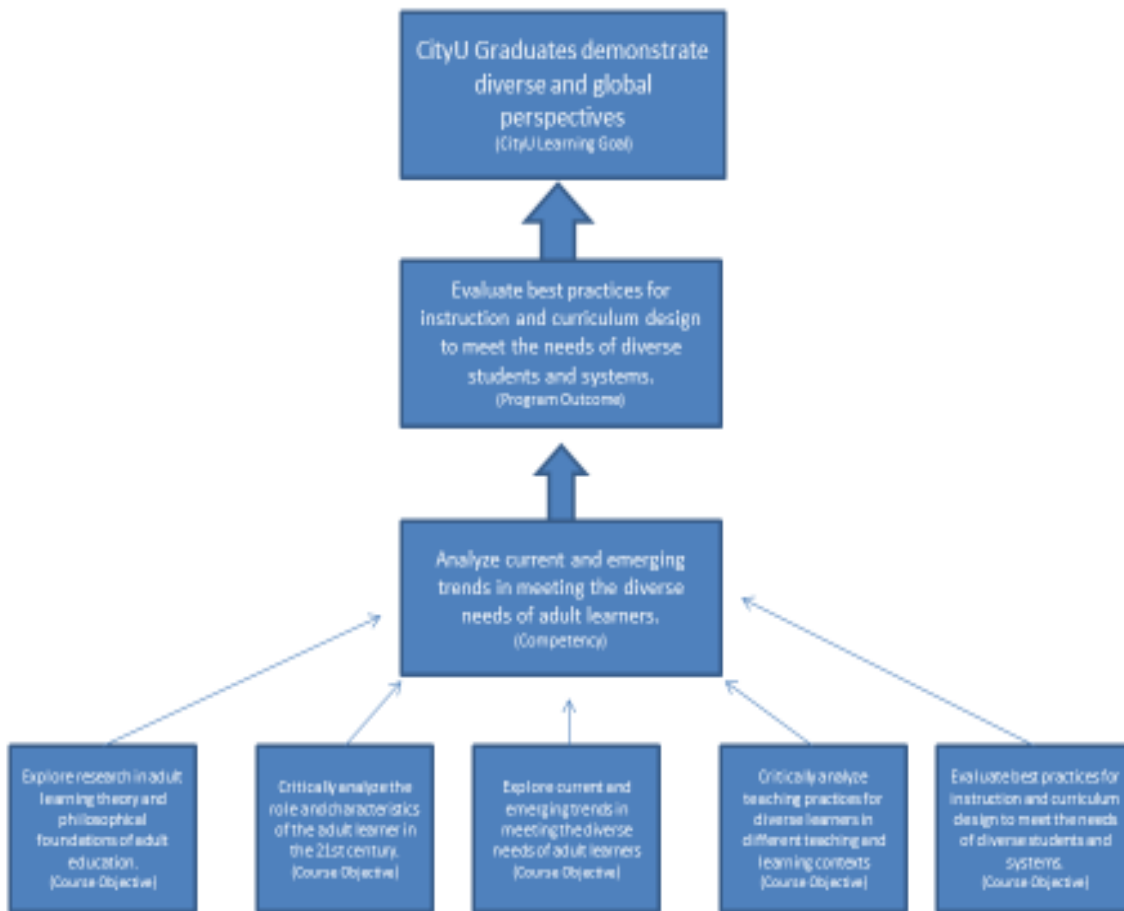
With this there is a significant distance between the course objectives and the program outcomes. This is not a negative, simply a structure of learning which currently exists in many programs at City University, as well as, throughout the United States. Course objectives are very specific at a granular level to indicate each bit of learning occurring within that course. For each course, the objectives identified directly align up to program outcomes which are end of program expectations. The expectations are larger and broader indicating learning that must be demonstrated by the completion of the program. This learning is directly tied to University Learning Goals and industry standards. These are key marks of knowledge, skills and abilities that current employers within the industry are indicating they are seeking in potential employees.

Programs used a process of unbundling of course objectives to reorganize and group those individual objectives into related themes. As they bundled similar objectives together they then used those to develop competencies. These competencies were learning statements which indicated learning demonstrated by the student at a level which was in between the objective and the program outcome. One interviewee stated:

I took all the learning outcomes we had created from the traditional program and I literally printed them out on pieces of paper, cut them into little strips and went to a big table and sorted them into themes. And then I was able to create competency-based curricular blocks based on those themes (Response from Administrative Faculty).

Moving to competencies took the very minute and more tedious learning steps of objectives and placed them into larger more productive learning paces, increasing the student's ability to complete learning smoothly with better transitions rather than individual step by step objectives that, at times, compartmentalizes learning. From this, the program development team also

ensured direct alignment from competencies to program outcomes to University learning goals for optimal learning in a sequential order. This alignment is as follows:



(Graphic Derived From: Master of Education, Adult Education Program Design Guide)

Even though the program structure was in an outcomes-based format, completing the process of unbundling the old courses and finding themes to bundle and build is not as simplistic as it first appears. Respondents also spoke about the extensive understanding of content needed as well as, the mind shift that is necessary when moving into this new pedagogical way of instructing adult students. One respondent stated:

As we completed this process, one of the things we have had to do is look more closely at potential outcomes and work from a much richer and deeper understanding of the variety of outcomes. And we really had to work on our own flexibility in terms of what truly demonstrates the candidate's proficiency as opposed to what meets my own personal expectation of what this should look like (Response from the Administrative Faculty).

Another respondent spoke to how:

It took us quite a bit of a mind shift to take existing traditional courses and distill them down to their essence... we took all of the outcomes for what happened to be selected courses as three courses that were similar [in content] and tried to eliminate all the redundancies we can now encapsulate that item into a single exercise instead of multiple exercises. So trying to eliminate overlap and really distill down to a core set of competencies or concepts (Response from Administrative Faculty).

All respondents spoke of how it was not a quick process either. It took a series of conversations over an extended period of time for teams to gain greater understanding and flexibility needed to develop a program which is student centric rather than instructor centric. One respondent spoke to how:

Stepping out of the role of the sage and decision maker into the role support of learning and encouragement of creative thinking, was really hard for some of us. Really hard. Even how to develop a course that wasn't structured around this is what the outcome has to look like. Not what the outcome has to be or what it has to look like. I feel we have made a lot of progress there, but it is really hard getting there (Response from Administrative Faculty).

Another respondent spoke to the challenge it was to:

Not fall back on traditional course trappings and start thinking about assignments.

Having ongoing conversations with all team members enabled the progress to continue moving forward while helping each other struggle to grapple with new concepts and theories about learning and teaching, thus, extending their own pedagogical theory and practice placing the student at the forefront of every decision made (Response from Administrative and Teaching Faculty).

It is obvious from the interviews that the design and development of CBE programs is extremely program centric and industry intentional. There is great emphasis on indicating at which point students demonstrate knowledge, skills and the ability to carry those out correctly in a workforce setting. This is seen by the curriculum mapping each program has completed as well as, the responses in the interviews. One respondent stated:

Some competency formats are really about tests. We don't want to just test your knowledge, we want you to apply it (Response from Executive Leadership).

Another spoke to how competency without context is just testing by stating,

I think in competency-based you have to have context, if it is just reading then you're just back to testing. It's about performing, you apply it and now we're assessing it (Response from Teaching Faculty).

Through this use of curriculum mapping the design of each learning block became a natural next step within the process.

Through the use of the University's Learning Management System, Black Board, shells were made for each learning block to house vital materials, such as: journal articles, textbook suggestions, video lectures, presentations, any item that would support learning towards the competencies, for students to utilize as needed. Each shell contains a wide variety of materials in

order to accommodate various learning styles and provide multiple layers of support for those who need it. Students also have full access to the University's library system to complete research for additional materials. Each shell also has discussion and meeting abilities so students have the ability to have ongoing conversation with other students, as well as, subject matter experts and facilitators (greater explanation on these roles following in this section). Each learning block has a Black Board shell which acts as the virtual classroom for learning. Once a student completes that learning block, they move to the next block and a new Black Board shell full of materials for that content area.

In order to develop a clear learning path, students in the Master of Education program begin each learning block with a self-assessment using an extensive four-tiered rubric to indicate areas of strength and areas for focus while completing the block. This four-tiered rubric was developed by a team of individuals, amongst of which are: instructors, facilitators, content experts, program leaders, current industry representatives and any other individuals needed. This rubric contains components to assess each competency set in order to obtain the learning necessary to meet the program outcome. From this self-assessment students submit their current standing against each competency and a learning plan. In this learning plan, the student has clearly indicated areas of strength, areas for growth and a plan to accomplish the learning needed to meet standards set for each competency. Having the students take the lead on their learning sets them to have the locus of control for their learning and not sit idle waiting to be told what an instructor feels is important. Shifting this locus of control over to the student increases ownership of learning and escalates student retention as multiple programs at City University are already seeing. One interviewee who works with student teacher interns shared:

The candidates (students in the University's program) themselves are becoming more enthusiastic and saying, 'hey I have this great idea and when I am working with my student's today, I'm going to test it out to see if it works.' The candidates themselves are doing the work of the alignment and the connection. It's not an instructor telling them this goes with that, it's the candidates *seeing* it work for themselves. This increases the intentionality and authenticity of learning, directly focusing on the student and their needs (Response from Administrative Faculty).

As students complete their learning towards each competency they submit various artifacts they feel will meet or exceed the standards set. Facilitators are assigned to each learning block and act as a guide and mentor to the students. The facilitator is different from an instructor in that they are a guide, helping students on a more individual basis as needed, not lecturing on set topics or assigning readings for all to complete as an instructor would in a more traditional course. The facilitator has extensive background knowledge and experience with the content in that learning block and is able to help direct the student learning as the student needs.

Once the student feels he/she has met the competencies, they then submit their artifact to the assessor for scoring. The assessor is a separate content expert who assesses each submission against the rubric. The reasoning for using an assessor separate from the facilitator is thought by some to increase validity. As one interviewee stated:

We identified a basic rule that we needed to separate the mentorships from the assessment 'cause we wanted to make sure there was a third party assessor who could standardize the assessment aspects, to make sure everybody did the outcome regardless of the format they would deliver their proof of learning outcomes in (Response from Executive Leadership)

So an Assessor needs to be flexible enough to assess learning through various formats, yet know the competencies and outcomes well enough to standardize the evaluation of the assessments.

Assessors use a rubric as the tool to complete the assessment process. This rubric was created by the design team and provides the student and the assessor with clear and direct expectations of what they must demonstrate to meet the competencies. While some institutions do not use rubrics as they use multiple choice tests, some use binary rubrics as seen in chapter two, City University uses a specially created rubric which is complex enough to clearly articulate and assess all aspects of learning, yet simplistic enough for the student, assessor or any outside industry representative to understand (See Appendix 1 for sample rubric). Rubrics are designed to directly assess the competencies and provide four levels of indication towards each component. Using this type of rubric provides multiple advantages to both the student and the assessor increasing success of completion, learning and feedback:

As an assessor using the rubric is extremely helpful in providing evidence for the feedback I give to the students. It really is a helpful tool for evaluating and scoring work (Response from Teaching Faculty).

When institutions use the binary rubric which only indicates met or not met, the student is left to wonder to what extent they demonstrated competence. Additionally, if they did not meet the standard they are left to wonder why and do not have feedback to improve future learning. Neither of which is helpful for increasing and directing future learning. Having a tool which provides the student with greater guidance and the assessor the ability to provide stronger feedback, increases student learning and satisfaction which also increases retention and completion.

It is important to note that the use of rubrics as City University does, takes some special training on the part of an assessor. They must have extensive ability to read, understand and use a rubric as the tool for assessing work, extensive knowledge and experience in the content area to effectively know what the student is demonstrating, as well as, have flexibility to complete the process on a wide variety of submission and not see demonstration of learning as a one-sided aspect. Many of the interviewees spoke as to how they were told if a person separate from the facilitator indicates the student has met or exceeded the competencies then we should assume that the set up and facilitation are working. It's an indication that the program is effectively completing its mission of preparing students for industry needs:

Well it is my understanding this is just the philosophy that was passed down and just what we were told to do. I'm not necessarily sure it is right or wrong, but I think it's because another institution does it that way (Response from Administrative Faculty).

One area that separates City University from other programs researched is its focus on performance and the ability piece of the knowledge, skills and ability. We see this from the set up with the curriculum mapping and explicit indication of each competency focusing on knowledge, skills or ability. In the presentation of learning with detailed learning block shells full of wide variety of materials for students to use and support from a facilitator to help anytime it is needed or wanted. To the assessment process and the student's participation in the determination of learning process to the use of a detailed four-tier rubric which provides greater feedback. Every respondent spoke to the focus on demonstration of learning, not recalling of facts. Students are all assessed on the ability to carry out learning in an authentic real world basis not simply completing an exam of terms and questions. As stated earlier, many gave variations

as to a definition of competency-based, however each participant had a keen focus on students demonstrating far more than knowledge by recalling facts out of the workforce context.

### **Student Focus**

Another theme that emerged strongly throughout the review of documents and interviews was the attention to the student and the focus on student needs rather than institutional needs. City University has created a solid, multi-layered student support system which encompasses key supporters throughout the University from recruiting to graduation.

Before students even gain acceptance into their program they must complete an application process and interview with a program lead. The purpose of this is to gain valuable information from the student about their previous experiences and learning style. CBE is not appropriate for all learners and clearly identifying student who best fit this type of education is crucial. Some characteristics of students who typically thrive in a CBE program are students who:

- Are self-motivated and self-driven to complete tasks without being told;
- Are natural problem solvers and results focused;
- Are creative thinkers and like directing their learning, and;
- Have previous experience in the field of study.

It is in the interviews that program leaders have the opportunity to speak about the characteristics of students who are successful in this type of program and that while students may complete the program in a shorter time frame than a traditional program, it is not the norm, nor should it be a main reason for wanting to complete a competency-based program. One respondent spoke to how it was a continued challenge to:

Find a really clear way to identify for potential students in the program and what this looks like, we're still working on that, but interviews help a lot (Response from Administrative Faculty).

While there may be a struggle to find what the student should look like, there certainly is not any struggle from respondents to indicate key responses that suggest the student is not a strong fit for CBE. Some of those include:

- Student wanting to finish fast and has a focus on the quickest way to complete the program rather than quality of learning.
- Student wanting to, “test out” of work and just wanting to complete a test rather than provide evidence of implementation of learning in an authentic setting.
- Student thinking it will be easier because they can do whatever they want.

All of these can be very misleading for a true competency-based program and can indicate the student is not a strong fit for this type of program. One respondent stated:

We have students who entered the program because they thought it would be faster- or easier or more efficient- without taking fully into account or fully knowing that substantively it means it's more self-directed. We're doing some adjustments to face those challenges now (Response from Administrative and Teaching Faculty).

So while not each interviewee felt confident in articulating which were positive characteristics, each one could articulate which were negative characteristics and indications of particular students who would not be successful in a program such as this.

Once a student is accepted into the program, they receive an Advisor who will remain with them until completion and degree. This Advisor will help with all institutional questions

and needs like registration of learning blocks, financial aid assistance, and transfer of credits if applicable. The advisor serves as the main point of contact and who the student can call if they don't know who to contact for a question or need. Advisors also check in with students at least once per quarter to ensure successful completion of the current learning block.

An orientation course is offered to each student to learn more about the program and how CBE works within it. This course is a short optional activity, however, strongly encouraged. Most students do take some time to look through it. Another orientation offered is on the Black Board learning Management System so the student has ample amount of time to learn how to navigate through this system before starting any program requirements. Both orientations have facilitators to help students should any questions arise while completing any activities within them. Both are also open to the students the entire duration of the program so they can refer back to them at any time needed.

Facilitators lead each learning block and are the main point of contact students have while completing learning for that block. Because facilitators have extensive knowledge and experience within the area of focus in each learning block, they have developed comprehensive shells filled with numerous learning objects to support a wide variety of learning styles and needs. They lead discussions for students to participate in regarding the work being completed and how this can extend beyond current state. They provide feedback and revisions to work in progress guiding the student's learning further in their learning against the plan submitted. They also contact each student on a weekly basis to gain insight as to completion progress and any needs for assistance, as well as, provide students with sample schedules for completion of learning should they not feel they can complete it on their own. You name the need, the facilitator assists the student in meeting it.

Another means of support that City University offers which I was not able to identify in the other programs I researched, is an additional layer of support from a program leader. In some cases this is called a Program Coordinator and in other cases a Program Director. In one program in particular, the Director has contact with each student at least once per quarter to inquire about progress and completion of learning. While the Director reaches out to students quarterly, it is well known to the students that she is there to support their learning and encourages them to contact her anytime with questions, comments or concerns. It is a very open program policy and students do contact her as needed to further learning and progress. This added layer of support greatly increases program quality and commitment to student learning:

The rationale behind this added layer of support is the emphasis on meeting student needs and creating a student-centered program which employs multiple strategies and supports to ensure successful completion of competencies (Response from Administrative Faculty).

Another important piece of support the students are provided and guided to fully utilize in the orientation is the rubric. While it does serve as an assessment tool to measure learning against competencies, it also provides the student a detailed outline of learning expected in order to meet or exceed competencies. As spoken to earlier, the rubric provides great amounts of detail as to what the student must accomplish to demonstrate learning and having the student interact continually with this provides ample amount of support to accomplish the competencies set. With the student using the rubric to set their learning goals and path to accomplish them, it keeps them actively engaged in their learning and the completion of it.

There is no question in listening to respondents that City University of Seattle is implementing CBE programs with the student at the forefront. There is great emphasis placed on

the student experience and how to best meet student needs. Each respondent spoke to using CBE as means to meet student needs. One respondent shared, as she was speaking about it being for the students and meeting their needs, how anyone who is thinking of implementing CBE should first ask themselves:

What population of students do I serve or trying to serve and is CBE most appropriate for them? (Response from Executive Leadership).

After all it is the student who drives the existence of the program.

### **In Conclusion**

Throughout document reviews and interviews with Instructors, Program Directors and Executive Leadership it is evident that City University of Seattle has extensive support from every level in developing and implementing CBE programs. It is this strong support which enables programs to design learning blocks and systems of support which best meet student and industry needs without pigeon holing all programs into one specific format.

However, with this support is a need for strong leadership with a clear vision and solid plan. While programs are moving along and creating CBE learning blocks, they are seeking strong leadership to bring a deeper understanding of CBE as a pedagogical approach and format for program completion. Respondents repeatedly spoke to the need for a stronger understanding, University-wide guidelines and regular training regarding the philosophy behind this instructional practice as well as, implementation of best practices to increase student success. Currently, programs have great openness to create CBE programs as they wish. This is great in meeting program needs, however lacks university oversight to ensure programs are in compliance with university goals, values and mission. Respondents agreed that some freedom

and programmatic differences are necessary, but too much can have a negative impact both on the program and the university itself.

To date, the publications and public attention has focused largely on for profit institutions who have built massive CBE programs at rapid rates from hefty financial supporters. It is leaving many other institutions to feel that they are not able to create such programs without excessive financial ability. City University of Seattle has created multiple quality CBE programs without any outside financial support or contributions. Through diverse design teams who include participants with various expertise, CBE programs were developed and implemented with extensive focus on student needs and experience.

While many other Institutions are now under scrutiny and speculation as to quality of learning and attention to student needs, it is obvious from this researcher's experience that quality of learning and meeting student needs is at the forefront of the CBE existence at City University. Through research, intentional development, numerous on-going conversations with a vast array of constituents, dedicated program leadership and University-wide support, CBE programs have emerged and positively impacting over five-hundred students as they complete their degrees.

## CHAPTER 5

### CONCLUSION

Through grounded theory this research has focused on establishing practices and procedures used to develop and implement CBE programs at a private, not for profit institution. The purpose of this research was to gather data from various constituents involved in order to establish emerging philosophies and practices that would serve as a baseline for other institutions when deciding to implement CBE programs. In addition, data gathered will also benefit City University of Seattle as it will provide valuable information as to what is working well and areas in which the institution itself could look at altering to better improve processes already in place.

This final chapter will begin with a summary of findings, based off internal and external document reviews and interviews conducted with faculty and executives, will analyze each question posed in Chapter 3. I will then discuss implications to research conducted and limitations throughout this research study. Finally, I will include recommendations and possible direction for areas of further research based off findings.

#### **Summary of Findings and Interpretations**

##### Question One:

*When looking at implementing a competency-based education format within an institution of higher education, what processes and procedures did program officials implement as they transition from instructor-led to competency-based?*

- *What led programs to feel they needed competency-based education?*
- *Who were participants involved in the decision making?*
- *What process did programs complete to transition from Instructor-led to competency-based?*

Although interviewees gave varied and mixed responses to questions around the process of development, there were some commonalities that emerged. Each program completed the process of researching and designing CBE on its own. There is not a contracted common development team who completed all the programs as we see in institutions researched such as Northern Arizona University and College *for* America. The positive in this is that each program is designed to specifically meet the needs of students with who will be completing the program. One program in particular, has a specific contracted agreement with Boeing to provide a competency-based Bachelor of Arts in Business Management. This program was developed by a team, which includes experts from Boeing, to ensure that industry needs were specifically incorporated into all competencies. Students enrolled in the program are all employees of Boeing and can directly apply their learning as they complete the program. It is this direct application of learning that enables the students to have authentic and real-world learning which immediately benefits themselves as students, as well as Boeing as an organization (thus, providing a win-win situation for all).

The Master of Education program and the Master in Teaching program both have also partnered with local school districts to ensure that the learning for these programs is in direct alignment with the needs of school districts and current teaching practices. With these partnerships, City University is also able to customize any particular content to best meet district areas of focus. For example, currently many districts are looking at best practices for implementing new teaching strategies that align with Common Core standards. Because programs working directly with surrounding districts, City University of Seattle is able to ensure that competencies developed are most current and applicable. City University is also able to then develop learning shells which have the most current, research-based practices and materials in

which students can utilize as needed to increase knowledge, skills and abilities that will provide a positive impact on teaching immediately.

While each program completed its own process for development, they did all already have program outcomes and course objectives which helped the transition from the more traditional, instructor-led format to the competency-based format. Having these outcomes already established provided a natural evolution in development. All respondents indicated the process of utilizing the previous outcomes and objectives to establish the new competencies. As a practitioner-based university, City University already had a strong alignment in place with outcomes to University learning goals and workforce needs. This is an added bonus to the development and transition occurring when a program decides to implement a Competency-based program.

There is a strong sense of ownership and sense of meeting student needs in each program and this evident in the documents which provide such customized language. This clearly indicates the amount of time and attention from program leadership, as well as, industry experts who were involved with the design and development. This leads this researcher to conclude that programs offered in the CBE format at City University of Seattle truly do exemplify competencies that align with industry needs, thus providing greater preparation for students to apply their learning in the workforce. Thus, the CBE programs at City University fully embrace all aspects of competency-based education: knowledge, skills and ability, and not just relying on mastery of content as we see with other programs advertising competency-based programs.

However, as this research discovered from responses received during interviews, this individualization of CBE development can also create opportunities for fragmented practices which may not always align with one another, university expectations, and accreditation needs.

This can create discrepancies in student experience and overall quality of programs. It can also enable programs to not fully comply with CBE processes and philosophical practices. Not because programs do not want to, but when so individualized, understanding can also be hindered as we heard in interviews as well. Many spoke to the lack of understanding of what CBE really is beyond a definition and because of this, programs may inadvertently implement practices and procedures which do not fully carry out the philosophy associated with CBE. While participants all stated they felt there was a great amount of support and flexibility to implement CBE programs, there was not a strong leadership structure guiding this new type of program development and implementation. Participants spoke to the challenges occurred when designing and developing in a program by program manor and not in a university-wide format and the questioning of, “Do we really know what we are doing?” as one respondent stated. Additionally, every respondent spoke to the process taking extensive time and discussions with numerous constituents both inside and outside of the university. While some of this is natural with developing a new program, having a strong structure in place for programs to follow and a designated person to lead program development will improve this for both current and future programs.

A document was created by two of the Program Directors (See Appendix 2) to help guide the process and provide some broad regulations and parameters, however without a solid leadership structure, programs are carrying out CBE as they feel best, not by the document and this continues to encourage discrepancies. This researcher believes this creates multiple challenges with participant understanding, sharing and utilizing best practices, and quality assurance, one of high importance is with accreditation and the ability to provide evidence of university-wide communication and practices to ensure commonality and best practice across

programs. Another of high importance is with the student population and community response to this new approach to higher education. It is essential for Institutions implementing this type of education to have a clear and solid understanding and communication of competency-based education and the philosophy behind it as a valuable practice within higher education.

### *Research Question 2*

*What best practices are being carried out to ensure quality learning and demonstration of learning occurs, meeting the diverse needs of all students enrolled?*

Because CBE utilizes student's own experience to help tailor learning to best meet individual needs, it in itself is diversified instruction. However there are a few unique practices being carried out at City University of Seattle which are already proving to increase student learning and ability to directly apply this new learning. While many promising practices were discovered, reviewed here are three major practices which emerged through various document reviews and participant interviews.

#### Practice One: Strong Student Focus

There was a unified commitment to student needs and how best to meet those needs that emerge from students within each program. Many students who attend programs at City University are older, working and have families. This means their ability to commit to learning is limited and often during odd hours, such as nights and weekends. Because of this, competencies are clustered into groups of similarity, which are called Learning Blocks. Each learning block has its own space within the Learning Management System, in this case it is called Black Board (BB). When the student logs on to BB and enters the learning block assigned they will see various folders relating to the content of competencies set. Each folder focuses on a particular competency and holds various learning objects to help the student. These learning objects are in

various formats such as video lectures, short written synopses from content experts, research journal articles, electronic textbooks, and various guides and documents related to content covered. Students are then able to pick which method of learning is best for them and review the content in that format. Should the student feel they need additional help, they have a Facilitator they can contact. The Facilitator will be explained in greater detail in the coming paragraphs.

In addition to extensive learning resources provided, students also receive continuous support from various faculty and program leadership. The most present in their learning are Facilitators who are all content experts within the field of study. Each learning block has a Facilitator with whom oversees the learning progress for each student. The Facilitator will post short lecture videos and suggest other various learning resources within the BB shell for students to utilize when extending current knowledge or acquiring new knowledge. The Facilitator will also lead discussions on various topics, complete weekly check-ins with each student to ensure they are successfully completing the learning in the timeframe submitted, and complete various on-going, formative assessments to guide the student. Should students want greater assistance, the Facilitator is also available for individualized meetings in person, over the phone or via Skype, which ever best meets the student's needs.

After the third or fourth week within the learning block the student receives an email from the Program Director. This initial email is to gain a sense of the student's perception of his or her progress to date. If the student feels progression is solid and not needing any additional support, and this is verified by the Facilitator, they are able to continue as indicated in the self-assessment submitted. However, if the student is wanting more conversation or guidance from the Program Director a meeting is set to further discuss student needs. At this time the Program

Director, Facilitator and Student all work together to ensure the student needs are met to the greatest extent possible.

When a student is accepted into the program, one of the first people they meet and begin working with is an Advisor. This Advisor is assigned as they submit an application and the Advisor works with the student to ensure they continue to complete courses and feel successful within the program. The Advisor contacts the student at least once per learning block and sets this contact point within the first few weeks of start. As they begin to gain a better sense of each students' amount of time to complete learning blocks, Advisors are then able to set these contact times when it is closer to the end of the learning block to best support students completion and registration for the next learning block.

With this set-up the student has a minimum of three contacts within the program to which they can contact at any given time for support. The Facilitator, Program Director and Advisor continuously remind the student to contact them at time they feel they need any amount of help or support. It is believed with this strong support at multiple levels within the University, students have a stronger sense of support and that the program and University truly care about them as learners.

#### Practice Two: Emphasis on Involvement

In each program at City University there is a strong emphasis on student involvement, by Facilitators encouraging on-going discussions around content, students encouraged and paired off with other students to help review artifacts in progress, along with a structured completion system which ensures students are not only participating, but driving the learning they wish to complete.

In each program students are able to see the competencies set for each learning block along with detailed four-tiered rubrics outlining exactly how the submission of learning, City University calls these artifacts, will be assessed once submitted. Because of this, the student has a very clear and detailed guide indicating what is expected of them and how it will be assessed once the student submits an artifact(s) for scoring.

In one program in particular, a multi-leveled assessment cycle is implemented in order to ensure continual involvement and progression occurring increasing student success and ownership of learning. In the Master of Education program, students utilize the rubric provided to complete a self-assessment at the beginning of each learning block. From this evaluation of current knowledge, skills and abilities, they design a learning plan in which the student outlines how they will proceed in order to gain necessary information in order to demonstrate the ability to meet or exceed the standards set for each competency. The Facilitator then uses this learning plan to help guide the student and provide additional information in areas noted as needing most support. Having the student complete a self-assessment and take time to closely evaluate their current abilities, then develop a plan to complete the learning needed really places the student at the forefront of their learning and empowers them to actively take the lead.

As the student begins to develop artifacts demonstrating learning, they submit up to three draft versions to the Facilitator for feedback and assistance. This enables the student to gain expert feedback from a content expert and the Facilitator with the ability to complete important, on-going formative assessments. These formative assessments are crucial in further developing students' knowledge, skills and ability, to not only just meet standard, but to reaching their highest possible potential overall. It also provides valuable feedback to the Facilitator about the learning resources within the shell and how helpful they are to the students. From this the

Facilitator is able to better design and implement discussions, learning resources and activities for students to improve learning.

Once a student feels they are able to demonstrate the ability to meet or exceed standard for each competency, they then submit an artifact or artifacts which best demonstrates their learning. The way the student demonstrates learning is up to them. The student can submit a video, written research paper, oral presentation, or any other medium which they feel exemplifies their learning the best way. This submission is then scored by an Assessor who is separate from the Facilitator and an outside expert working within the same field as the degree. While none of the interviewees could fully explain why this practice is best or even good, they all did indicate that they were told it was set up this way because it was thought to create more validity to the program. One respondent even stated,

“I don’t know why we do it this way, I was told it is because it creates more validity and that Western Governors does it this way so we did too” (Response from a Program Director).

This researcher feels this piece of the practice could be a great opportunity for further research and will discuss this further later in this chapter in the Recommendations for Further Research section.

### Practice Three: Attention to Knowledge, Skills and Abilities

As this researcher reviewed program documents and the alignment established between competencies, program outcomes and University learning goals, it was evident that careful and deliberate attention was given to ensure that each program was truly competency-based, including all three facets, and not just focusing on the knowledge component seen in other models. While other models focus on completing various tests in which students demonstrate the

ability to recall facts, City University has a very distinct focus on ensuring students demonstrate all three facets of competency-based education. Each program has what they call a Program Design Guide and in this is the direct alignment I spoke about in Chapter 4 and just above, however in the Master of Education program, each competency is marked as K, S, or A meaning that, that competency is a Knowledge, Skill or Ability. Again, Ability is indicating that the student demonstrates the knowledge to determine the best skill and can successfully carry this out in a real-world setting. Thus, directly implementing new learning as immediately and successfully as possible. Having each competency marked with K, S, A clearly indicates for students and accreditors which facet of competency-based is emphasized with each competency. This also enables the programs to verify they are maintaining true to CBE and make changes in area needed should it appear otherwise. This researcher recommends this practice become standard for all programs moving forward.

*Question Three:*

*What design and development processes are being implemented to ensure rigorous curriculum, outcomes and competencies that are clearly defined and articulated?*

- *What design procedures were used?*
- *Who are key stakeholders involved in the design and development?*
- *Were industry experts included or consulted? What was extend of their inclusion?*

Many interviewees spoke to how there was this sense, not created by the University per say, but more from the outside public, that CBE programs almost had to be more rigorous than traditional programs in order for the public and non-supporters to begin to see its value. Because of this, each step of the design and development process was closely monitored and reviewed by

Program Directors, Course Managers and all participants involved. Because City University already had University Learning Goals and Program Outcomes, the transition to Competency-based was a natural next step in the educational evolution for the University. Each program had a variance of design teams who were comprised of various key stakeholders such as: Program Directors, Course Managers, Facilitators, Content Experts, Industry Representatives, Librarians and anyone else felt was needed. Through this team, program outcomes were carefully dissected and competencies were developed in order to ensure natural steps were being completed that provided the means to reach each program outcome. Industry experts were included, or consulted if not able to participate directly, to review two major aspects:

1. To review Competencies, as written, for clear and direct alignment to Program Outcomes and University Learning Goals, and;
2. To review the Competencies and Program Outcomes to provide valuable feedback on the extent to which they met industry standards and needs, providing authentic real-world connections.

This involvement with industry experts did not stop with the design phase just described. These experts were also involved and the development of resources used in learning blocks, as well as, in the assessments developed to evaluate the student's performance towards each competency. City University is a practitioner-based University, all teaching faculty, whether Facilitator or Instructor, are active participants within the industry in which the program is aimed at. Because of this, students are able to gain first-hand knowledge from industry experts who can directly relate the learning to real-life experiences and industry practices.

#### Question Four:

*What assessment procedures and data collection are carried out to verify students are meeting the competencies set and not skating by with minimal effort?*

- *How is assessment of student learning carried out?*
- *How are programs defining and measuring student success?*
- *How are programs defining and measuring program success?*
- *How will programs know if CBE is effective and meets student, program, industry needs?*
- *What measures will they implement for collecting and reviewing data?*

Student learning is assessed through four-tiered rubrics which were developed by the design teams as they created the competencies. What is great about this is that the teams were comprised of leading industry experts and this had a significant positive impact on the content and connection of that content to real-world practice. However, it was noticeable to this researcher when reviewing documents, is that even though all programs were using rubrics as the assessment tool for evaluating students, the quality to which the rubrics were developed varied significantly by program. The ability to write high quality rubrics which positively assess and impact learning, is not an easy skill and takes considerable training. While some rubrics had clear descriptors which focused on demonstration of learning and content, other rubrics only focused on formatting and writing mechanics with little to no assessment of learning actually occurring. While the standard practice of using rubrics helps to create validity with assessment, however, the wide variance in quality of rubrics creates a concern with reliability when used.

At this time, programs are measuring student success in very similar ways. Program that have CBE and a traditional format running are comparing student data from each one to evaluate

the student performance and success. Programs are also using multiple communication strategies to gather valuable student feedback as data for measuring success. Student's complete university established end of learning block evaluations in which they complete a survey regarding the experience, Facilitator and learning resources. Since CBE is relatively new for most of these programs, program leadership is also actively gathering feedback from students both formally and informally every opportunity, gaining information on student success and if the program is meeting student needs. Another indicator that many interviewees spoke to was with retention and the amount of students progressing from learning block to learning block. Having higher retention rates was felt as a strong indicator that programs, as one interviewee stated, "must be doing something right, whether we know it yet or not" (Response from Program Director and Instructor).

All programs involved are relatively new and because of this, have not had any students complete all requirements and graduate as of yet. In some of the programs they will see the first graduates participate in the June 2015 ceremony and other programs will be out further depending on the implementation timeline set. Nonetheless, this does not mean programs are not completing evaluations. All program leaders are also actively looking at measuring program success regardless of no students fully completing programs to date. For the program reviews, Directors are also looking at retention rates and utilizing extensive student feedback from both formal and informal conversations, surveys and end of learning block evaluations as indicators for student success, completion abilities and program success to date.

To gain an understanding of meeting industry needs, programs will continue consultation with experts, as well as, begin to track student progress after program completion. It was felt by interviewees that collecting data on hiring and/or promotion rates of graduates after completion

of program will be another strong indicator of the success of the program and of CBE as an effective means to better prepare students for industry needs.

### **Limitations of the Study**

While I feel this Case Study provides valuable and rich information for other Universities with similar populations, to consider when designing and implementing a competency-based education programs, it is important for this researcher to note limitations to this study.

First, the participants for interviews is severely limited. This researcher believes this is from two main reasons:

1. City University is a small, private, not for profit University and many employees have multiple roles. For example, all program leadership is required to instruct or facilitate in CBE programs, a certain amount of credit hours per year as well. This means that some interviewees are noted as both a Program Director and a Facilitator because they are currently Facilitating in a CBE learning block as well as, maintaining their role as Program Director. This also can affect the response the interviewee gives. Having multiple roles within the program can create multiple perspectives and interviewees could have responded based on one perspective or another, or a combination of the two. Because of the timeline for this research, only one interviewee was a Facilitator with no program leadership responsibilities and this provided a very limited perspective from the Facilitators only, rather than individuals with multiple roles within the University.
2. Another limitation to the participations of interviewees is the lack of programs implementing CBE education at this time. While many programs are beginning to look at CBE as an effective means to increase student learning to a given population of students,

only a very limited amount of programs are offering these programs and have students enrolled. Because City University only has five programs currently offering CBE formats, it limited the possible programs to include to only five as well.

At this time students were not part of the interview process nor considered for this study for multiple reasons. First, it is believed by this researcher that a full and complete research study could be completed on the student's perspective of CBE and completing a CBE program alone. The purpose of this study was to indicate promising practices discovered while designing and implementing CBE programs and not necessarily the student experience of a CBE program from their perspective. It is not to say this is not important, only that completing research to gain this data is enough for a whole separate research study. It is believed by this researcher, that completing research on the student's perspective of CBE programs and their experience while completing a CBE is a worthwhile research study and could provide great amount of valuable information for other programs to consider when offering CBE programs to students of similar populations.

The last limitation to this study this researcher feels should be noted is the relationship between the researcher and the research site. Because this researcher is also an employee of City University, it provided challenges to maintaining complete autonomy while completing the research since I was known by all participants. While on the one hand, this was a bonus as participants felt more comfortable since they knew me, and this lead to greater participation and comfort when answering interview questions. On the other hand, at times I had to probe and or ask for clarification more as often they would stop short of fully explaining an answer and add in statements like, "well you know what I mean" or "you know how it is" rather than fully elaborate. This led this researcher to asking an increased amount of probing questions and

requests for further explanation of responses. Member checking has also been employed to ensure that all responses are true and correct and have not been unintentionally altered based on this researchers experience.

### **Considerations for Future Inquiry**

Because of the lack of published research to date, along with the findings, interpretations and limitations of this study, multiple considerations for future inquiry should be noted. First being the lack of credible research published at the time of the literature review. Since the included literature review, some additional research has been published, however this research remains to focus mainly on major for profit entities, or institutions with substantial financial resources which is not the norm for most institutions within higher education who serve the distinct population of students who benefit most from such programs as CBE. Publication of additional case studies which highlight promising practices utilized at other private or not-for-profit entities or institutions with similar populations would be of great value as one, confirming the results of the current study completed. And two, establishing a broader array of best practices for future colleges and universities to employ that would provide several possibilities of promising practices for even greater diverse populations. Two areas in particular based of this research would include further research on the instructional model with separate Facilitators and Assessors and the student perspective on CBE.

While all data from interviews and document review indicated great amounts of purposeful decision making for every aspect of design and delivery on behalf of the teams compiled, it was surprising to this researcher that an area as major as the assessment being carried out separate from the facilitating was unknown as to why. Yes, interviewees stated they do it this way because they were told to, it appears little to no research was actually completed as

to why this might be an effective practice and one that should be carried out at City University. Only that just because another institution in higher education is set this way so City University will establish this practice as well. Research has long shown the importance of the instructional cycle with the teacher also completing the evaluation of assessments in order to gain a better sense of effective practice and it is important to not neglect long time practice which has also been established as promising. Completion of further research in this area could provide valuable information for programs and institutions of higher education with valuable information as to a more effective means of assessing that perhaps, is not placed as extreme on the assessment continuum.

Another area that would greatly benefit from further inquiry is the student perspective and seen value with CBE and the emergence of this type of program. To date much published research has focused on the “what” and “how” of CBE, rightly so. While having been in existence for numerous decades in primary school systems, it is a new philosophical practice to higher education. Now that the onset of the this newer philosophical approach has slowed from great panic and question to consideration and conversation, many institutions with whom hold more traditional educational practices are also beginning to consider the possibilities with such programs. It is felt by this researcher that beginning to focus research on students perspectives and experiences, the field can now begin providing valuable explanations as to the “why” and “who” which would greatly aid all programs delivering, designing and just considering CBE, even more so, the students who are completing CBE programs. We see the importance of gaining student insight through on-going conversations, surveys and other means of obtaining feedback, in this case study alone and a larger scale research study would provide extensive data at a much larger scale, as to the essential components needed in ensuring positive student experiences

which increase learning and produce graduates with greater abilities to meet rapidly growing and increasingly diversifying industry needs.

## REFERENCES

- Bergeron, D. (2013). Dear Colleague Letter. United States Department of Education
- Brenner, C. (2006). Psychoanalysis or Mind and Meaning. *Psychoanalytic Quarterly*, Third Edition.
- Brown, A. & Hurst, F. (2013) Competency-Based Education at Northern Arizona University: Personalized Learning and Assessment of Learning. *CAEL Forum and News Competency-Based Education*, Pg. 16-19
- Bruner, J. (1997). The Culture of Education. *Harvard University Press*.
- Creswell, J. W. (2009) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (3<sup>rd</sup> Edition). Thousand Oaks, CA: *Sage Publications*.
- Friedman, M. (2009). Trying Hard is Not Good Enough. *BookSurge Publishing*.
- Gansglass, E., Bird, K., & Prince, H. (2011) Giving Credit Where Credit is Due: Creating a Competency-based Qualifications Framework for Postsecondary Education and Training. *Center for Postsecondary and Economic Success*.
- Glesne, C. (2011). Becoming Qualitative Researchers: An Introduction (4<sup>th</sup> Edition). *Pearson Publications*.
- Glennon, C. D. (2006). Reconceptualizing Program Outcomes. *Faculty Forum*, 40(2), 55-58.
- Hackett, S. (2001). Educating for Competency and Reflective Practice: Fostering a Conjoint Approach in Education and Training. *Journal of Workplace Learning*, 13(3) 103-112.
- Jones, E.A., Voorhees, R.A., & Paulson, K. (2002). Defining and Assessing Learning: Exploring Competency-Based Initiatives. Report of the National Postsecondary Education

- Cooperative Working Group on Competency-Based Initiatives in Postsecondary Education. *National Postsecondary Education Cooperative*.
- Jones, K. & Olswang, S. (2013). Innovative Program Delivery: Performance-based Education. *Authentic Instruction and Online Delivery: Proven Practices in Higher Education*. CreateSpace Independent Publishing.
- Kaliannan, M. & Suseela, D. (2012). Empowering Students through Outcome-based Education. *Research in Education* (87) 50-63.
- Klein-Collins, R. (2012). Competency-Based Degree Programs in the U.S. Postsecondary Credentials for Measurable Student Learning and Performance. *Council for Adult and Experiential Learning*.
- Klein-Collins, R. (2013). Sharpening Our Focus on Learning: The Rise of Competency-Based Approaches to Degree Completion. *National Institute for Learning Outcomes Assessment*.
- Klein-Collins, R. & Baylor, E. (2013) Meeting Students Where They Are: Profiles of Students in Competency-based Degree Programs. A publication of the *Center for American Progress* and the *Council for Adult and Experiential Learning*.
- LeBlanc, P. (2013). College for America at Southern New Hampshire University. Private Publication.
- Marshall, C. & Rossman G. (2006) Designing Qualitative Research. Data Collection Methods. Thousand Oaks, CA: *SAGE Publications*. Pg. 97- 140.
- Merriam, S. B. (2009) Qualitative Research, A Guide to Design and Implementation. San Francisco, CA: *Jossey-Bass Publications*. Pg. 209-235
- Merriam, S. B. (2009). Qualitative Research: Qualitative Case Study Research. Pg. 40-46

- Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis* (2<sup>nd</sup> Edition). Thousand Oaks, CA: *SAGE Publications*
- Patton, M.D. (1980). *Qualitative Research and Evaluation Methods*. Third Edition. *Thousand Oaks, CA: Sage Publications*. Pg. 228- 247.
- Porter, S. (2014) *Competency-based Education and Federal Student Aid*. Department of Leadership, Policy and Adult and Higher Education, *North Carolina State University*.
- Share, J. (2013). *College for America: A New Approach for a New Workforce This is Accessible, Affordable, and Relevant*. *CAEL Forum and News Competency-Based Education*, Pg. 20-24
- Spady, W. (1994). *Outcome-based Education: Critical Issues and Answers*, Arlington, VA: *American Association of School Administrators*, in Killen, R. (2000). *Outcomes-based Education: Principals and Possibilities*’, unpublished manuscript, University of Newcastle.
- Spady, W. (1994). *Choosing Outcomes of Significance*. *Educational Leadership*. V51(n6) 18-22.
- Spady, W. & Marshall, K. (1991). *Beyond Traditional Outcome-Based Education. Integrating the Curriculum*. *Educational Leadership*. V49(n2) 67-72
- Sturgis, C. & Patrick, S. (2010). *When Success is the Only Option: Designing for Competency-based Pathways for Next Generation Learning*. *International Association for K-12 Online Learning*. Funded by: Nellie Mae Education Foundation.
- Sturgis, C., Patrick, S. & Pittenger, L. (2011). *It’s Not a Matter of Time: Highlights from the 2011 Competency-based Learning Summit*. Vienna, VA: *International Association for K-12 Online Learning*.

- Voorhees, R.A. (2001). Competency-based Learning Models: A Necessary Future. New Directions for Institutional Research, San Francisco, CA: *Jossey-Bass* 110, 5-13.
- Vygotsky, L.S. (1978). Mind in Society: The Development of Higher Psychological Processes (14<sup>th</sup> edition). *Harvard University Press*.
- Yin, R. K. (2006). Case Study Research: Design and Methods (Applied Social Research Methods). Thousand Oaks, CA: *Sage Publications*.

## Appendix 1

### Rubric

#### **Program Outcome #1**

Demonstrate the ability to successfully utilize research within the classroom to effectively carry out best educational practices which increase student learning for all populations.

Distinguish between the three major types of research methods: Qualitative, Quantitative and Mixed Methods;				
a) how these are implemented correctly in current research b) which type of research is best for an intended outcome and; c) how applications of these practices increase student learning; d) analyze and reflect upon the effectiveness of research in teaching practices.				
	Developing (Remembering)	Emerging (Understanding, Applying)	Proficient (Analysis, Synthesis, Evaluating, Creating)	Exemplary (Analysis, Synthesis, Evaluating, Creating)
Understanding	Artifact submitted: provides a cited definition of 1 or 2 research methods, but does not include all 3 or any components for methods	Artifact submitted: includes candidate's definitions supported by citations of each methodology, but does not articulate major components for each method	Artifact submitted: Clearly defines each research method and categorizes the major components found within each research method  Explains how the use of the research methods relates to increasing current classroom practices	Artifact submitted: Clearly defines each research method and categorizes the major components found within each research method  Evaluates the effectiveness of the use of research methods to increasing current classroom practices
Implementation	Artifact submitted: is not able to demonstrate correct implementation of the research methods	Artifact submitted: demonstrates application of 1 or 2 of the research	Artifact submitted: demonstrates correct application of each research	Artifact submitted: demonstrates development of new topics for each research

		methods learned through research in a classroom setting	method learned through research in a classroom setting	method learned to be carried out in a classroom setting
Intention	Artifact submitted: does not state the reasoning why the research method chosen was chosen	Artifact submitted: states the research method chosen	Artifact submitted: illustrates why the research method chosen is the best method to gather data needed	Artifact submitted: evaluates why the research method chosen is the best method to gather data needed and provides justification through additional research
Analysis & Reflection	Artifact submitted: includes a retell of candidate's learning.	Artifact submitted: provides a summary of candidate's increased learning  includes a vague goal or a future learning opportunity	Artifact submitted: includes an analysis and reflection of the candidate's increased learning from the proper use of research and how it promotes distinguished classroom practices  Provides future learning opportunities and a goal for continued learning and professional development	Artifact submitted: includes an analysis and/or synthesis, and reflection of the candidate's increased learning from the proper use of research and how it promotes distinguished classroom practices  Provides multiple future learning opportunities and goals with timeline indicating continual learning and professional development

				related to research
Writing Mechanics	Contains 7 or more spelling, punctuation, and/or grammatical errors, so understanding is difficult. Contains numerous awkward or ungrammatical sentences, and sentence structure is simple or monotonous. Misuses words, or uses words that are too vague and abstract or too personal and specific for the topic.	Contains 4-6 spelling, punctuation, and/or grammatical errors which also may temporarily confuse the reader. Sentence structure generally correct but may be wordy, unfocused, repetitive, or confusing. Uses relatively vague or general words and sometimes inappropriate words.	Contains 2-3 spelling, punctuation, and/or grammatical errors, but these do not impede understanding. Sentences are clear, well-structured, and focused. Words are used accurately and effectively.	Entirely free of spelling, punctuation, and/or grammatical errors. Sentences are varied, clearly structured, carefully focused, and fits assignment's purpose and audience. Words are chosen for their precise meaning and an appropriate level of specificity is used.
Research-based Support	Few statements and thoughts are supported by current research citations within the artifact. References are credible and/or relevant sources, appropriate to the discipline in support of ideas. Reference list is included at the end and in APA format.	Many statements and thoughts are supported by current research citations within the artifact. References are credible and/or relevant sources, appropriate to the discipline in support of ideas. Reference list is included at the end and in APA format.	ALL statements and thoughts are supported by current research citations within the artifact. References are credible, scholarly and/or relevant sources, appropriate to the discipline in support of ideas. Reference list is included at the end and in APA format.	ALL statements and thoughts are supported by current research citations within the artifact. Includes opposing views when appropriate. References are credible, scholarly and relevant sources, appropriate to the discipline in support of ideas. Reference list is included at the

				end and in APA format.
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## Appendix 2

### University Guidelines Document

#### Performance-based Program Elements

##### ***Performance-based Learning***

Performance-based education is a delivery format where the learner demonstrates the ability to meet or exceed industry standards set by the program and/or University. This demonstration is carried out with a focus in three main strands of demonstration: knowledge, skills and ability. Students submit artifacts that demonstrate their learning towards competencies in each strand that lead to program outcomes and university learning goals. While the majority of the learning occurs via distance learning, students may also meet synchronously, in-class and/or online, for portions of the block on a regular and established schedule. For each program competencies are organized into learning blocks, with each block tied to quarter credits. Students work at an individual pace with the guidance and instructional support of a Faculty Facilitator. They may complete the assessments found in the block, or suggest alternatives that show they have achieved the course outcomes according to the corresponding rubric. Students' artifacts are evaluated according to the rubric by independent Evaluators. Faculty Facilitators compile the results of the evaluations and submit the final grade.

In addition, faculty is required to adhere to instructional directions as specified by the Course Manager and their primary supervisor.

##### Instructor-

Instructors serve as Facilitator/Mentor in the PB programs.

##### Facilitator/Mentor-

The Facilitator/Mentor provides a high level of interaction with students as they guide the learning tailoring to individual needs:

- They initiate conversations with students based on the students' timeline for completion
- Conduct weekly (at minimum) individual check-ins with each student
- Provide feedback on student work when requested
- Recommend and collaborate with CM regarding learning objects to enhance BB shells
- Communicate concerns about student progress on a regular basis to the Program Director who will then contact all needed parties
- Notify Assessor/Grader when submissions are available for scoring
- Determine final grade for the course by compiling assessment scores
- May initiate group conversations around content and course inquiries
- May provide sample schedule for course completion

##### Assessor/Grader

- The Assessor/Grader provides final grading on artifacts submitted for scoring with appropriate feedback as needed to further increase learner development and support scoring.

- All feedback is to occur within 3-5 days after submission.
- If the submission is unacceptable, the Assessor/Grader is responsible for contacting the Facilitator/Mentor, prior to posting grade.

#### PB Support System

Program Director- Provides Orientation for new students and communicates other program information as needed to advisors, facilitator/mentors, and assessor/graders.

Advisor- Provides registration information on a quarterly basis and assists students with needs outside of course requirements including deciding whether PB is best for them.

Course Manager- Chairs the course development team that creates all learning block documents and BB shell. Hires and coaches all Facilitators/Mentors and Assessors/Graders. Has responsible for ensuring course content and BB shell are current, understandable and contain high quality learning objects.

#### Training

Faculty roles, course development, facilitating, grading- Currently, training is occurring individually as needed per program. As the University expands PB programs we recommend a more formal training process in addition to the New Faculty Orientation.

#### Communication

The Program Director is responsible for communicating out all program information, procedures and guidelines.

#### Program and course development and reviews

- Course development and CC reviews- All PB program and course development will follow existing guidelines and procedures already established by CQC.
- Course shell requirements and development- All PB course shells will include: A syllabus, rubrics, recommended resources, program & course leadership profiles, gradebook, assignment submission, course module developed as needed.
- Rubric development- Clear and detailed rubrics are crucial for student success in PB courses. These rubrics are more robust than current rubric requirements for more traditional-based courses, providing greater details per component.

#### Program maintenance

- Hiring- Hiring of Facilitators/Mentors and Assessors/Graders is completed by the Program Director and/or Course Manager.
- Pay- Currently pay is \$20 undergrad/\$30 grad per student per credit for Facilitators/Mentors upon student completion. The Assessor/ Grader receives \$25 per student, per assessment and is paid quarterly.
- Student tracking- Student progress and completion tracking occurs with multiple individuals:
  - i. Advisors track student progress on a quarterly basis.
  - ii. Facilitators track student progress on a weekly basis with ample support.
  - iii. Program Director/Course Manager track student progress as needed in a case by case situation.