EDUCATION ENTREPRENEURSHIP: HOW DO LEADERS IN TWO COMMUNITY COLLEGES FOSTER AND SUPPORT INNOVATION & ENTREPRENEURSHIP

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Dedication

This dissertation is dedicated to my remarkable family…

My wife, Sherine who was amazing particularly during the times when I had to decline family activities

My two gorgeous daughters, Nichole, and Samantha (in order of age), and handsome son, Handel

My consummate mother, Edith M. Fraser, who has supported, counseled and prayed for me throughout my doctoral studies

My brothers, Charles (my eldest brother), Lennox who continually beckoned me to be the first in my family to obtain a doctoral degree, Leonard who prayed for me, Ann-Louise who was generous when it was needed, Dunbar – the brother that gave me my first nephews, and Esther my beloved baby sister

And in memory of my wonderful father, Charles R. Fraser, along with my mom who helped shaped my character of the person I am today through their consistent love, guidance, and sacrifices, and with assistance from God made all this possible
Acknowledgement

First and foremost, the completion of this dissertation – the partial fulfillment of my doctoral degree, along with the many hours spent with my coursework was only possible through God’s help. I remain hopeful that my example of persistence and dedication to lifelong learning through the completion of this terminal degree will be an inspiration to my children, extended family, and others.

I want to thank my colleagues and the president of Andrews University for their support while I was working at the institution during the early stages of my coursework. These professionals, who understood the difficulties of doctoral studies and the benefits of lifelong learning in the form of a terminal degree, allowed me to infuse some of my learning into the projects I was tasked to complete.

The case study of this thesis was not possible had it not been for the support of the participants from community colleges in Iowa and Michigan. These participants brought to life the theoretical underpinnings of this research project. They were generous with their time and commitment to furthering the study of entrepreneurialism in community colleges, and higher education writ large.

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Abstract

In recent years, community colleges have been facing a complex set of challenges in a fast-moving economic environment aggravated by declining student populations and reduced government funding. These external threats have encouraged some college leaders to look at alternatives ways to reduce or eliminate the impact of those challenges on their schools. This research, therefore, examines how community college leaders foster and support entrepreneurship at their institutions.

The two research questions that guided this study were (1) How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them? (2) What leadership strategies, structures, and use of resources do community college leaders employ in their colleges to foster and support innovation and entrepreneurial activity, as presented by the leaders, administrators, and faculty of the colleges? Qualitative methods were used to examine how college presidents foster and support entrepreneurialism, and the effects on the institution’s decisions to undertake this inventiveness.

The findings from this study fit the theoretical framework of Clark’s (1998) entrepreneurial theory of how college leaders fostered and supported entrepreneurialism at their community colleges. Findings also showed strategic and tactical approaches the college leaders used to establish and sustain an innovative and entrepreneurial ecosystem. The research was also able to provide useful strategies that other community colleges can undertake if they decide to consider changing their institutions from traditional to entrepreneurial education.

Keywords: Entrepreneurship, Innovation, Community Colleges, College Leaders, Administrators, Distributed Leadership, Leadership
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Chapter I: Introduction to the Study

Higher education is experiencing unprecedented challenges in today’s complex global economic environment. Selingo (2015) proposed that “about half of small private colleges and regional public institutions missed either their enrollment or revenue targets in recent years, according to Chronicle surveys” (p. 6). If this continues, more colleges and universities will fall prey similar to what happened to Sweet Briar College located in Virginia (Selingo, 2015) when the college closed, although it later reopened. Some in higher education may argue that the current problems are cyclical, but studies are beginning to discover the difficulties are more troublesome than previous downturns in academia. Hence, ignoring these complexities is of more significant risk to the viability of higher education institutions. By acknowledging the problem, educational leaders can begin the process of evaluating what is needed to change course.

Flanagan (2013) postulated that to counter this growing threat, academe would need to use innovative business models to reinvent itself to avoid “disruption from all angles” in its pursuit to continue being relevant (p. 12). Fortunately, what have helped colleges and universities overcome some of these problems are online programs. Even though online education has been around for decades, it was mostly available at for-profit institutions. Virtual postsecondary schooling has substantially reshaped higher learning. However, online programs are more difficult for high school graduates who need in-person help to develop their learning abilities. Another option that is showing signs of promise is the hybrid types of courses. Southwestern Michigan College, where the researcher teaches, has hybrid courses that involve a third of the class being taught online, a third taught in class, and a third completed through independent study. This additional course option enables some students who might be concerned
or undisciplined with online courses to be better able to succeed. Adding to this problem, many students are coming out of secondary school deficient in math, language arts, and science, reducing the likelihood that those types of students could survive in a simulated schooling environment. Based on the experiences gained as an adjunct instructor, it appears to this researcher that these students are coming out of high school unprepared. Their study habits are porous, and some come to class completely unprepared.

As academic institutions continue to be “faced with diminishing resources, advances in technology, and increasing enrollments, colleges and universities are striving to find a balance between innovation and tradition to remain relevant and current in a rapidly evolving world” (Flynn and Vredegoogd, 2010, p. 5). Hence, the goal of this thesis is to investigate how two community college presidents are actively fostering and supporting innovation through entrepreneurial activity in their institutions to meet the demands and lead innovation in their community colleges to benefit their students and communities.

As tuition and fees continue to rise, many students are deciding to take on enormous student loan debt, putting off college, or choosing to attend a community or technical college. Abeles (1999) suggested more than a decade ago that “many secondary school graduates are driven towards the two-year institutions” (p. 12). Additionally, community colleges have historically been institutions where adults can pursue additional training and learning that can benefit their current and future employment skills. Furthermore, according to the National Center for Education Statistics (2007), 41 percent of 18 to 24-year olds are enrolled in post-secondary institutions. Since 2007, the enrollment percentage has only risen by two percentage points. This suggests that there is a whopping 59 percent of 18 to 24-year olds available for degree-granting institutions. Although this may not indicate that all the remaining available students would want
to attend college, still, it is clear that more could be done to make it possible for as many as are interested in enrolling in college.

**Research Problem**

Considering the need for innovation in community colleges, the leaders of these colleges are confronted with the prospects of how to foster and support innovation and entrepreneurship at their schools. Although there are studies that seek to understand and identify approaches on how a college can institute or improve entrepreneurialism, a limited amount of study has been done particularly as it relates to community colleges to examine how it could be done. “Bernard, Pittz, and Vanevenhoven (2018) suggested that though there is some research done as it pertains to entrepreneurship at the university level, a little amount has been completed at community colleges.

Therefore, the purpose of this study is to study what college leaders are either doing or in the process of fostering and supporting innovation and entrepreneurship at their schools. The research is to examine how college leaders proactively adopt and sustain entrepreneurial practices and how they perceive their roles in accomplishing its stated goals. Upon examination of two community colleges, this research provided methodologies that can be used by college leaders on how to actively foster and support innovation and entrepreneurialism.

**Significance of the Problem of Practice**

As the 21st century enters the middle of the second decade of this era, higher learning is experiencing a revolutionary change in how the modes of education are being dispensed. Methods such as online learning or a blended version of online and on-campus learning are becoming common for most institutions, including premier institutions such as Harvard. Although online education has been around for many years, it was primarily a construct of for-
profit institutions and was shunned by mainstream higher education institutions. However, over the last few decades, the economies of the developed countries began to expand and open up trade among the “developed” and “undeveloped” nations. In turn, it allowed the world’s population to live and work outside one’s place of birth. Moreover, the United States, the world’s largest economy, one may say, is probably experiencing this transformation more than most. Flynn and Vredevoogd (2010) posit, “Faced with diminishing resources, advances in technology, and increasing enrollments, colleges and universities are striving to find a balance between innovation and tradition to remain relevant and current in a rapidly evolving world” (p. 5).

Finding innovative ways in which the higher learning institutions, specifically two-year colleges, can bolster their income is vital for the college to be sustainable in the long-term. Starting in a community college does not preclude students from reaching their fullest academic potential. It is not suggested that all students should begin their studies in a community college, but those who either failed to gain entrance into a four-year college or whose education path began as an adult may find this method of learning an excellent alternative. Additionally, as students who are mostly interested in technology type degrees or other career paths that do not require a bachelor’s degree or higher, such as nursing, may find the community college as a better alternative.

To support the significance of this study, the author presents the perspectives featured in four articles. First, Kalogrides & Grodsky (201) advocates that in the context of rapidly expanding postsecondary enrollments, community colleges have the potential to play a critical and often overlooked role as a postsecondary safety net for initial four-year students who are ill-prepared to complete or finance their college educations. (p. 853)
Although this type of educational pathway is unusual, having this safety net is good for academia because community colleges enable students to continue their studies while developing other essential skills that are necessary to succeed in a four-year college.

Second, Phelps and Prevost (2012) revealed that “governing boards, state officials, and campus leaders are intensely examining, refining, and reprioritizing post-secondary education missions and spending to optimize value-added economic and social returns” (p. 97). As Phelps and Prevost (2012) suggest, these innovative approaches are not only good for four-year colleges, but also for community colleges.

Third, community colleges play an integral role training the next generation of skilled workers who will fill the jobs of the future, but they also prepare students who desire the attainment of a four-year degree. Ramson (2014) suggested, “College students will face a workplace transformed even from the one that existed five years ago” (p. 159). What this indicates is that community colleges can be a capable partner with four-year academic institutions, where shared interests prepare the populous for the jobs of the future.

Fourth, Strawn and Livelybrooks – Boggs (2010) “pointed out that community colleges are playing an increasing role in the production of STEM professionals in the United States” (p. 47). That said, a community college is a viable and effective way of helping interested students achieve their academic goals.

**Positionality Statement**

My life experiences, culture, and race are what have shaped my positionality. “As advanced by postmodern and feminist thinkers, positionality is a concept that acknowledges the complex and relational roles of race, class, gender, and other socially constructed identifiers in being (Parsons, 2008, p. 1129). Hence, the experience I had after high school and as an adult
learner, shaped my interest in community college education for adults, as well for high school graduates who may not have an interest in a four-year college experience.

Throughout my career in the manufacturing industry, along with other everyday experiences, what I have observed and heard on a regular basis is that of the need for community colleges to help prepare the next generation of workers in the new emerging careers in the United States. For example, manufacturing firms in the United States have been complaining about the lack of qualified, trained workers who can operate very sophisticated equipment.

After I graduated from high school, I moved to New York City to find full-time employment and begin college. My parents sent all six of my siblings and me to K-12 Christian schools, which was very costly, and it left them unable to save money or assist us financially with college. Furthermore, I did not know what I wanted to do after completing high school. After finding a full-time job in New York City, I then applied to LaGuardia Community College to study mechanical engineering technology, which would then enable me to transfer to a four-year college. I thought at the time that I would be able to afford the tuition with my full-time job, while allowing me to complete an associate of science degree. What happened, however, is that the job took precedence over completing college. The money was good—better than what four-year degree college graduates were earning on average at the time. While living in New Jersey and during the time I was considering returning to college, however, my research of schools in the area revealed a fascinating fact: that there was an educational connection between the community colleges in New Jersey and the state universities and four-year colleges. For example, any student who completed an associate of arts or associates of science degree was eligible for automatic enrollment into Rutgers University.
These experiences formed my curiosity about studying the economic benefits that a community college benefit from institutionalizing entrepreneurship as part of its long-term strategic imperatives.

My belief related to my area of interest is that there is a need to find innovative ways in which the higher learning institutions can reshape its environment into a progressive functioning organization. Before embarking on the research topic of this thesis, I must admit that my research into entrepreneurialism was limited, and that my opinions were not initially sufficiently grounded on how impactful innovation practices are on improving the sustainability of community colleges. As I stated previously in this paper, the interest in the topic was borne out of my experience after high school and later during my return to college as an adult. My biases are based on the stigma that is associated with community colleges, particularly with students who meet the SAT and GPA necessary for entry into the top universities. I consider “top universities” to mean Tier 1 institutions. What I am suggesting is that my biases are based on my past experience of considering community college as an alternative to attending a four-year college or university. Because these biases reach as far back as three decades, I probably have a sympathetic thought process about the issue.

My interest was further piqued after reading an article that Robert Reich, the former Labor Secretary in the Clinton Presidency, and the current Chancellor’s Professor of Public Policy, University of California at Berkeley wrote in a Huffington Post blog. The article, “Back to College – The Only Gateway to the Middle Class,” stated, “Consider, for example, technician jobs. They do not require a four-year degree. But they do require mastery over a domain of technical knowledge, which can usually be obtained in two years” (Reich, 2014, paragraph 7). Therefore, technical training obtained at a community college could provide the necessary
skillsets as Reich proposed that considerably reduces the financial obligations, while preparing the students for the workforce.

Please note, however, my interest is not to suggest that a university or four-year college is not essential for higher learning, but rather that a community or two-year college could be considered as a valuable option for students. This is particularly the case for those students who are not interested in spending four-plus years in college or at a university.

With that said, I have worked hard to identify and isolate biases, opinions, feeling, and intuition to preserve a neutral position as a researcher. How did I do that? Machi and McEvoy (2009) assert, “First, careful introspection can bring these personal views forward, where they can be identified as what they are” (p. 19). Throughout the study, I continued the practice of self-examination as a way to to challenge my biases as have been identified in this paper. While continuing to test my biases, it was my hope, nevertheless, to be honest with myself as I researched the various articles that were used for this thesis study. Thus, the goal was to be mindful that, “A well-established scholarship exists that has alerted us to the complexity of the relationship between the researcher and the researched” (Sanghera & Thapar-Björkert, 2008; p. 543). That said, I practiced self-awareness continually to make sure I did not become blinded with my inherent biases as I conducted this quantitative study. I remained open as much as possible to considering alternative views when they were available, to identifying and isolating biases, opinions, feelings, and intuitions in order to stay neutral in my position.

Research Questions

1. How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them?
2. What leadership strategies, structures, and use of resources do community college leaders employ to foster and support innovation and entrepreneurial activity, as presented by the leaders, administrators, and faculty of the colleges?

**Theoretical Framework**

The theoretical framework for this study is the entrepreneurial theory. The contemporary scholars who have made contributions to this theory are Mars and Metcalfe (2009); Mars & Rios-Aguilar (2010), McGowan, van der Sijde, and Kirby (2008); and Shattock (2010). Originally developed by Clark (1998), he proposed four tenets that formed the entrepreneurial theory. The five tenets are a strengthened managerial core, an enhanced developmental periphery; a diversified funding base, a stimulated academic heartland, and an integrated entrepreneurial culture.

The first tenet, “a strengthened managerial core” (Clark, 1998a), is about promoting a collaborative approach between the leaders of the administration and academics. Many higher education institutions operate in a siloed environment, which limits the ability for interdepartmental sharing of ideas. The reason is in some ways due to the very nature of these types of institutions. Buildings detach the departments, schools, and colleges. So, the buildings create a natural separation of knowledge sharing. To develop the managerial core requires new thinking of how knowledge percolates institutionally. Clark (1998) posits that an entrepreneurial university is a type of contemporary university that operates on its own feet, adapting as it sees fit, to an incredibly complex and vastly uncertain world. For a university or college to adjust in these challenging times require a commitment by senior leadership for administration and academics to work together for the common interest.
The second tenet, “an enhanced development periphery” (Clark, 1998a), “requires administrative teams in colleges or universities to seek, recognize and capitalize on external opportunities that generate current or potential revenue generating opportunities” (Kennedy, 2013, p. 97). One cannot look only at the traditional approaches to creating new revenue-producing opportunities but also beyond for creative ways that tap into other non-academic and academic prospects. For example, Northeastern established and funded venture capitalist initiatives used as incubators for new concepts. The approach allows students and graduates to use Northeastern’s platform and resources to discover new ideas for the future. In other words, the school increases the probability of prospective students considering Northeastern as one of the premier schools for entrepreneurial studies. Moreover, the ideas and new knowledge evolving from Northeastern’s Venture Accelerator enrich the academic program, thereby continuing the cycle of learning. The net effect increases revenue, institutional recognition, and other value-added benefits.

The third tenet is “a diversified funding base” (Clark, 1998a), and this is particularly essential for state colleges and universities. As state governments continue to shift funding from higher educational institutions to other enterprises, such as prisons, diversification of its financing is imperative. The problem is especially acute for community colleges, which lack large endowments or have none at all. Therefore, finding new and creative ways of generating revenue is essential for long-term sustainability for non-profit public and private higher learning enterprises.

The fourth tenet is “a stimulated academic heartland” (Clark, 1998a), which opens the door to a bottom-up, decentralized way of making decisions. According to Kennedy (2013), “Clark was deeply opposed to top-down, centralized decision-making and supported the
inclusion of faculty with administration determining goals” (p. 101). The essence of this strategy is to allow for ideas to percolate vertically and horizontally. Every voice has a hearing in the knowledge sharing and development of new ideas. Removing the barriers for knowledge-sharing releases the power of ideas, which leads to budding entrepreneurialism within institutions. To become and remain a college that continues to remake itself and is dynamic and flexible requires removing any obstacle that stifles entrepreneurship.

The fifth principle is “the Integrated entrepreneurial culture.” This principle is about changing the culture – more like a transformation change. According to Clark (1998), “The new culture may start as a relatively simple institutional idea about change that later becomes elaborated in a set of beliefs.” This principle is particularly salient in terms of the notorious difficulty changing the institutionalized culture. Clark (1998) postulated that change should start in a simplistic form to prevent an unstable environment that is part of the characteristics of change. So, integrating an entrepreneurial culture where the core organizational values of the college is traditional education will require a deliberate process of change and renewal.

Clark’s theory is suspect, according to other writers though. Kennedy (2013) pointed out that, “Mars and Metcalfe (2009) suggest that entrepreneurship in education undermines “the social contract of public higher education” (p. 12). And “Peter Drucker (1985) describes entrepreneurship as developing new ways of doing business or meeting market needs instead of improving on current ways of doing business” (Kennedy, 2013, p. 12). While there may be relevancy to their arguments, they failed to realize that entrepreneurship is not about removing the very fabric on these academic establishments but rather the improvement of these institutions as forward-thinking colleges.
The “Historical Perspective on Funding for Community Colleges” article, which gave this researcher a first opportunity to understand the context of the past, forms the supporting argument for the relevancy for community colleges as an important institution of higher learning. According to Kennedy (2013), “The 1970s marked the beginning of fiscal austerity for higher education” (p. 19). What the literature review in Chapter 2 will show is that austerity for post-secondary institutions was a construct that began at the turn of the 21st century. Therefore, the purpose of the literature review is establish why new thinking about having an entrepreneurial spirit in higher education is necessary. To understand this, it is vital to know the history of community colleges and their value in educating the public.
Chapter II: Literature Review

Studies have shown that entrepreneurship in education has been rejected as something mostly related to business enterprises, as not useful in academic environments. Hess (2011) postulated that “historically, educational entrepreneurship has been most notable for its absence” (p. 4) in the lexicon of learning institutions, as has been reported on by most major U.S. news organizations. It is clear, though, as Hess (2011) has indicated, entrepreneurship in education can be chaotic and problematic for public educational institutions. To that end, this literature review seven core areas regarding innovation and entrepreneurship in academia, as follows: the purpose of community colleges, current community college challenges and Successes, the need for innovation and entrepreneurial activity at community colleges, serving the community, increased student enrollment, examples of innovation through entrepreneurial activity at community colleges, fostering innovation – a distributed leadership approach.

The Purpose of Community Colleges

As tuition and fees continue to increase, many students are either deciding to take on enormous student loan debt, putting off college, or choosing to attend a community or technical college. Abeles (1999) suggested more than a decade ago that, “many secondary school graduates are driven towards the two-year institutions” (p. 12). Additionally, community colleges are a great place for adult students returning to college. One key reason is that many require remedial studies before they can take college courses. From The National Center for Education Statistics (2007), 41 percent of 18 – 24 old are enrolled in post-secondary institutions.

Additionally, since 2007 the enrollment percentage has only risen by two percentage points. The result suggests that there is a whopping 59 percent of 18 – 24 old available for degree-granting institutions. The results may not indicate that all the remaining available
students would want to attend college; still, more could be done to make it possible for as many that are interested in enrolling in college.

The most important value for educating post-high school students is the availability of community colleges and technical colleges that are easily accessible for any student interested in furthering their education or training. These types of colleges present a viable option that benefits not only the student and the institution but the community at large that it serves. Therefore, one could agree, “community colleges have the potential to play a critical and often overlooked role as a postsecondary safety net for initial four-year students who are ill-prepared to complete or finance their college education” (Kalogridges & Grodsky, 2011; p. 853). This type of safety as the authors proposed to provide a critical element in the educational system that makes it possible for the populous to create and discover new skills necessary for the jobs of the future. Some positions of the future, such as technicians, nurses, construction workers, and other trades do not require a four-year degree, but someone with a two-year degree. Supporting this, Phelps and Prevost (2012) suggested that government officials along with leaders from postsecondary institutions are discovering that community colleges are viable options for maximizing the economic value for learners.

Studies have shown along with news commentaries that are bringing to light how the jobs are markedly changing. Manufacturing firms in the U.S. are having difficulty finding qualified employees, but as well, trainable workforce due to their lack of basic math and language skills necessary to be competent in highly technical manufacturing operations. Also, “college students will face a workplace transformed from the one that existed five years ago” (Ramson, 2014; p. 159). Most four-year colleges and universities do not have programs that are suited for students who are more interested in getting a technical or two-year degree. This problem places the
burden on community colleges to fill that gap without the linkage necessary for students, who may have started his or her education in a community college, then discovering later the desire to go further in their studies. City University of New York (CUNY) recognized this problem and created “A program that ditches an array of courses and majors for a carefully structured experience keeps more students on track toward a degree” (Mangan, 2013; p. 7).

Community colleges are experiencing increased enrollment while undergoing decreased governmental financial support. Studies have shown that “Community colleges enroll nearly half of the students enrolled in public undergraduate programs” (Bers and Schuetz, 2014; p. 167). Alternatively, four-year colleges and universities are either experiencing declining or stagnant enrollment. Again, the National Center for Education Statistics points out that in 2010, 26.7 percent of recently graduated high school students attended CCs, while 41.4 percent at four-year institutions. Three years later in 2012, 28.8 percent enrolled in CCs and 37.5 percent registered in four-year institutions. One could agree that two-year institutions are experiencing enrollment growth while four-year is declining. This dynamic, though, puts a heavy burden on CCs to manage admission demands with lowered financial support from state and local governments.

An anomaly to CCs experiencing a reduction of state aid is the State of Tennessee. The state government is offering free college to students interested in CCs. Governor Haslam decided after hearing from local business leaders about the lack of skilled workers to fill many vacant positions. Although it is too soon to determine if the governor’s approach will work, CCs are an essential educational enterprise in the community it serves. Other U.S. states are also either considering Tennessee’s path or have already signed into law tuition-free CCs for in-state residents, such as Maryland, and New York. That said it is important to note that most state and local governments are still trying to reduce expenditures, so CCs are in the crosshairs of
lawmakers. Crookston and Hooks (2012) indicated that CCs are “[competing] with other social expenditures, such as prisons and health care demands, for scarce public resources” (p. 350).

**Current Community College Challenges and Successes**

Community colleges historically have been viewed as nothing more than an extension of high school or sub-college. A student noted, “At my high school if you were going to community college after graduation, it was almost considered social suicide” (Blankenship, 2011, p. 38). The reasoning the student used is understandable because of the history of community colleges as being a place of study for those who barely made it out of high school, or someone who came from the lower-socioeconomic class or minority groups. Blankenship (2011) proposed that the way to combat this negative view of community colleges is to make entrance into four-year colleges and universities more accessible for students whose only option is in a two-year institution. Moreover, as students start selecting community college for costs savings reasons—something which is becoming increasingly common—these negative views of community colleges will begin to dissipate.

Already there are two states, California and Alabama, that have established a method to transfer students from community colleges to state four-year colleges and universities by assuring credits gained in a community college are acceptable in its four-year degree-granting institutions. Also, “The Jack Kent Cook (JKCF), which co-sponsored the Threading the Needle report, has also launched programs for high-achieving two-year students” (Blankenship, 2011, p. 39). The net results from the JKCF proposal allowed students to transfer to Ivy League schools, such as Brown, Columbia, and Emory (Blankenship, 2011). These are examples that promote positive views that could begin to eliminate the harmful misconceptions of community
colleges. Blankenship (2011) research, for instance, identified students whose experience with the JKCF program was positive. One of those students, Carvajal-Regidor stated:

Many people speak of community colleges as if they were a non-higher learning institution. Attending JCCC for two years and obtaining my associate was probably one of the best decisions I have ever made. It got me to the Jack Kent Cooke Foundation, the University of Kansas, and a feasible path for my future as one student pointed out (Blankenship, 2011, p. 41).

Community colleges provide an excellent opportunity for interested learners despite its being historically perceived as a less than attractive educational option for higher learning. It must be noted, however, that not all community colleges are the same, so a better understanding of these differences could help determine which two-year college is a valuable choice. Of course, this is not at all different from any other less desirable four-year academic institution.

One area that may be the cause for the negative views of community colleges could be due to the substandard education that a few have provided, leaving their students less prepared for the workforce, with an increased likelihood of dropping out, unable to transfer to four-year institutions, and in debt without a degree. In a study conducted in 2005 by the U.S. Department of Education, 50 percent of undergraduate students were registered in some type of two-year institution (Blankenship, 2011). Other studies have also concluded that the insufficient graduation rates or transfer students in community colleges have created a pause in the minds of policymakers. For that matter, many students complete a small number of courses before dropping out (Goldrick, 2010). However, “clear goals, strong motivation and a drive to succeed, the ability to manage external demands, and self-empowerment” (p. 221) could provide the needed impetus for community college students to succeed.
Melguizo, Kienzl, & Alfonso (2011) suggests community college students that complete the required courses not including remedial classes and then transfer to a four-year institution graduate at a similar rate as learners who started at a four-year college as discovered in their empirical research. The net result is that although community colleges have their problem with their retention rate, once the student transfers, their probability of graduating is like non-transferred students. Thus, despite the inherent issues with students in community colleges having trouble remaining in school, students are succeeding when given the opportunity to transfer.

Supporting the premise that transfer students from community colleges are likely to succeed as non-transferred learners, Mangan (2013) discovered when reviewing City University of New York’s (CUNY) accelerated a program that 14.5 percent of students completed an associate degree in comparison to only 8.7 percent of non-accelerated students. What is even more striking is that this occurred within two years since the inception of the program. Given the short duration of this program, there is a probability that over time the percentage of students succeeding in this program could increase due to the overall increasing success rate. What this study advocate is having an organized strategy, like CUNY’s accelerated program that allows for an automatic transfer from a community or two-year-college to a four-year academic institution increases the probability of higher academic achievement for students who need a head start in their educational journey. More importantly, “The transfer pathway is complex and often difficult for students to navigate” (Neault and Piland, 2014, p. 184), hence, a structured approach would reduce the difficulties and provide students with a guided path into a four-year institution. As a result, “universities are a key component of successful transfer outcomes and must be considered essential partners in the transfer equation” (Neault and Piland, 2014, p. 197).
Often, students whose only post-secondary education option is to attend a community college or who seek to reduce their college costs by doing so, struggle to remain in school because the system is designed to prevent most students from succeeding as Dynarski (2015) revealed. According to a New York Times article, Dynarski (2015) suggested that only 20% of community college students who are in a degree program graduate within three years after entry into the school. Comparatively, the National Center for Education Statistics (2007) indicated that 59% of students enrolled in a four-year program graduate in six years from four-year institutions. Circulating back to the CUNY’s Accelerated Study in Associate Programs (ASAP), Dynarski (2015) now show a 40 percent graduation rate within three years. It is a big jump from the 14.5 percent discovered earlier in this paper (Mangan, 2013). Another partnership that appears to show promise is a science, technology, engineering, and math (STEM) program using the expertise from research universities.

The Need for Innovation and Entrepreneurial Activity at Community Colleges

Community colleges are facing enormous challenges that are in some ways not dissimilar to public K-12 schools. As two-year state and local educational institutions, they are facing reduced governmental financial support, while coping with students who are ill-prepared for college work. Moreover, students are also unprepared in understanding the complexities of community colleges, where at times, there is a limited collaboration with local high schools that could help students understand the contours of post-secondary education.

Politicians in the federal, state and local governments have been cutting spending on a whole host of governmental expenditures, and education was no exception. Research thus far has shown that community colleges are more affected by cuts in spending for education. Public and private universities and four-year colleges are affected too, but they are in a stronger position to
“weather the storm” due to endowments. For that reason, leaders in community colleges will need to find creative ways to remain relevant, because the community it serves will be negatively impacted.

Governments, particularly under the current political environment, may begin to find ways to integrate community colleges with its respective state four-year colleges/universities to reduce its financial commitments or find ways to privatize the institutions. Myran (2013) confirms this thinking, stating, “Community colleges in some states are considering privatization—moving away from intrusive restrictions of state-level regulations and funding” (p. 93). Interestingly, one could argue that the declining quality of jobs, though partly due to the challenges of economic globalization affecting jobs at home and an underqualified populous, could also very well be a direct result of the reduced commitment by local, state, and federal governments with investing in community colleges.

Community colleges can play an integral role training the next generation of skilled workers, who can fill the jobs of the future, but also prepare students who desire the attainment of a four-year degree. Ramson (2014) suggested, “College students will face a workplace transformed even from the one that existed five years ago” (p. 159). What this indicates is that community colleges can be capable partners with four-year academic institutions, where shared interests prepare the populous for the jobs of the future.

Phelps and Prevost (2012) revealed that “governing boards, state officials, and campus leaders are intensely examining, refining, and reprioritizing post-secondary education missions and spending to optimize value-added economic and social returns” (p. 97). The approach Phelps and Prevost (2012) are suggesting is not only good for higher learning, better yet; it is great to include community colleges in research, which indicates its relevance in the dissemination of
academic studies. One approach is collaborating with four-year colleges as Strawn and Livelybrooks (2012) “pointed out that community colleges are playing an increasing role in the production of STEM professionals in the United States” (p. 47).

One institution “The University of Oregon responded to the National Science Foundation’s (NSF; 2006) call to increase the STEM pipeline by proposing increase matriculation of community college students into university science degree programs” (Strawn and Livelybrooks, 2012, p. 47). Studies have shown that “the UCORE program ‘catalytic outreach’ model illustrates the potential of extending the individual transformative experience more broadly to the college community college through social learning” (Strawn and Livelybrooks, 2012, p. 50). The study could identify how a collaborative approach between a community college and a university is not only beneficial for the U.S. educational system but also advantageous in creating an economic event. This practice provides an understanding of how a community college working in tandem with a university or four-year college can achieve much that is advantageous for students who are on the fringe and need extra help and guidance in succeeding academically.

Serving the Community

Community colleges serve their community by helping to “close employability and wealth gaps” (Myran, 2013, p. 45). One way to close that gap is for community colleges to expand the use of their workforce centers by seeking “to bridge the needs of job seekers and employers through available training and support measures” (Campbell and Love, 2016, p. 3). In many ways, this approach of using workforce centers forms the conduit between the community and its respective community colleges, and with local and regional businesses. This partnership between businesses and learners with the help of community colleges are critical for helping
grow employment, thus reducing the wealth gap and deepening the relationship with middle and high schools in their locality.

Moreover, Campbell and Love (2016) proposed, “An effective workforce development initiative considers what students bring to the table along with desired outcomes” (p. 7). Essentially, the workforce program needs to be robust enough to allow for a dynamic approach for educating and training students to be optimally prepared for the jobs of their choice. Caution should be considered to avoid offering too many choices that may overwhelm prospective students. Key to this is designing “programs to promote student’s long-term success as well as immediate labor market outcomes” (Soliz, 2016), so that the learner is not limited to current trends, but as well the jobs of the future.

Working together with secondary schools should also include helping students prepare for college by reducing the number of remedial classes they will be required to take upon registering for a community/two-year college. A staggering “60% of all community college students are placed into remedial, non-credit bearing courses” (Shelton, 2008, p. 6). That is an enormous problem for not only retention but as well, removing the stigma that two-year colleges are mostly for students who are academically low-performers. Shelton (2008) report of the 60% community college students needing remedial work in California, which has one of the largest K-12 educational systems in the country, is a harbinger for problems plaguing community colleges throughout the country.

What is even more interesting is that “there is evidence that many students who are placed in remedial classes could have been successful in college-level courses” (Shelton, 2008, p. 9). So, this indicates that the 60 percent according to Shelton (2008) does not fully capture the real problems of students who appear to be unprepared for college work; in reality, it is more
complicated than it seems. The divergence between what students are learning in high school and what is expected in college could be the reason for the conflicting data.

The other factor is that some students graduating from high school are unprepared for college. This problem is particularly acute for socioeconomically disadvantaged and minority groups. Venezia & Jaeger (2013) posit that “The vast majority of high school students aspire to some kind of postsecondary education, yet far too many of them enter college without the basic content knowledge, skills, or habits of mind they need to succeed” (p. 117). So, these students enter college with a difficult uphill climb in assimilating into a college level learning environment.

Academicians, according to Holland (2015), do not fully grasp the pressures placed on high school graduates to determine their suitable way forward for their education or training. Moreover, credible studies that examine the impact that this has on prospective college-bound students are absent. Even without this type of scholarly work on this subject, one could deduce what kind of stress this could have on learners’ interest in post-secondary education. First, students who are contemplating attending college are faced with the difficult task of determining the desirability of attending a community college. Although two-year colleges are mostly for students who do not have other alternatives due to their academic deficiencies, “increasingly high college expectations may put certain schools, such as community colleges, out of the running as acceptable destinations” (Holland, 2015, p. 2). There has been stigmatization regarding community colleges because it is readily viewed as an institution that caters to the underprivileged, and socioeconomically disadvantaged. Hence, most of the students who do attend are not only academically ill-prepared but also lack the ability to make good decisions/choices regarding the programs and classes they choose.
It is critical then is to begin helping students understand from as early as eighth grade the importance of succeeding academically and preparing for college (Halland, 2015). Moreover, as these students improve academically, their choices for college would be advantageous, which could also include attending a two-year institution. To do this would require commitments from community colleges to begin collaborating with high schools much sooner than what is commonly being done today, so that they could attract a diverse group of students who are top-performers. They may not be interested in considering college yet but potentially could be swayed to at least attend a two-year program to help them discover their post-secondary path.

This approach could begin to reduce the stigma of attending a community/technical college by exposing it as an essential educational establishment in the community it serves. Two-year colleges could be a good starting point for students “who [struggle] mightily to avoid community college, [as] there may be problems down the road if they enter four-year-colleges for which they are underprepared or that they can’t afford” (Holland, 2015, p. 31).

Indeed, the community college is a critical factor in community development by helping the citizenry enter the workforce. Moreover, community college provides continuous access to further training necessary for career development and sustainability for long-term employment. “It empowers individuals to grow in all areas of their lives, including support of family, cultural and recreational activities, continuing education, and career advancement” (Myran, 2013, p. 46).

So, in many ways, community colleges are the engine to greater community development, allowing students many options for college entry while maintaining employment.

**Increased Student Enrollment**

An excellent way to increase enrollment is by making completing a degree less complicated and more streamlined. Rather than the student having to face the daunting task of
figuring out which classes to take, what about creating an efficient way to limit the choices for degree completion? Bailey, Jaggars, and Jenkins (2015) study proposed changing the traditional model used in educating students. The authors observed that there is little institutional support or interest in finding new approaches necessary to improve the results for community college students. For that reason, Bailey et al. (2015) who boast more than sixty years of combined experience working with community colleges, determined there is a need for remolding the deliveries used in educating its student population.

This remolding work is necessary because of constant problems with retention and graduation rates in community colleges. With that said, the purpose of this work was to discover and propose redesigning the programmatic pathway for two-year degrees. Six key points provide an outline this work, beginning with a review of the inherent difficulties and opportunities of an open-choice academic approach.

First, the Bailey et al. (2015) examines open-choice, better known as the cafeteria plan, which allows students a considerable amount of choices that they could consider. These options enable the students to pick from a pool of classes that may or may not meet the required credits necessary to complete their selected degree program. Because of the many options, students are left confused and bewildered as to their prospects of achieving the degree program they chose. In addition to choosing amongst a plethora of classes, the student also has to find developmental coursework, which is most likely the case for a significant portion of community college students. Bailey et al. (2015) point out that the net result of this scenario is that a disappointing simple majority that drops out of the program. Additionally, even those students who are deemed college ready experience challenges within the cafeteria plan environment. Hence, one can
conclude that just reducing the number of developmental students would not remove the quandary community college students face.

Secondly, to address this problem, Bailey et al. (2015) posit that changing from a cafeteria methodology to a guided pathway could be the resolution of this old way of administering coursework. The challenge, though, is that “community college faculty and administrations seeking to shift away from the cafeteria model must overcome an entrenched organizational structure and culture” (Bailey et al., 2015). To begin overcoming this difficulty, one could start by considering a new approach as Bailey et al. (2015) proposed by creating a guided pathway that is narrower in focus and a clear methodology.

The goal for the guided pathway is to reduce “student confusion over the many choices available to them and thus reduce the mistakes that students make” (Bailey et al., 2015). Removing the traditional cafeteria plan is important, particularly for the clear majority of community college students who are unprepared for college. Many “two-year colleges enroll a disproportionate number of students who have academic, social, and economic challenges” (Bailey et al., 2015). Historically, most community college students need a variety of remedial studies before beginning the coursework that goes toward the completion of their stated degree program. This problem is exacerbated when students are given too many choices and are left to make decisions that they are unable to make without help. Moreover, students wait until the last minute to decide if college is their way forward.

The authors were careful to point out that there are challenges and pitfalls with the guided pathway approach. The risk in this type of proposal is the restrictiveness of this method. One possible drawback with using the guided pathway approach is that the available programs might not match the interest of the students nor offer the type of degrees that are in demand. However,
too many choices are as problematic as too few. Adding to this scenario is the lack of collaboration between “high schools and local adult basic education programs” (Bailey et al., 2015; Kindle Loc. 1253). This could lead to prospective students becoming dismayed, which in turn could result in increased drop-outs and others just forgoing college altogether.

Third, there are complications associated with utilizing both part-time and full-time faculty without negatively affecting student learning. The economic benefit of having mostly part-time faculty is indeed of great benefit to the institution. Part-time faculty are usually paid considerably less and without benefits, whereas, full-time faculty take a more substantial chunk of funds out of the per-credit revenue. It is then easy to conclude the significance of using more part-time faculty—it increases profits. The downside, however, is the possible negative effect on student success. These potential pitfalls of part-time faculty could be traced “to [excluding] adjuncts from the process” (Bailey et al., 2015), such as participating in course and professional development initiatives, along with other institutional opportunities for career growth.

The fourth purpose of this work is to investigate and create new ways to remedy the disconnect between high school and college-age students. It begins with unraveling the “fractured systems [that] send students, their parents, and K-12 educators conflicting and vague messages” (Bailey et al., 2015) regarding what students should be doing to prepare for college. This includes finding how to navigate the complex web of college life, such as determining the college of choice, the program suited for one’s interest, entrance requirements, and other necessary elements of attending college.

Fifth is the importance of establishing a collaborative spirit among faculty and staff, which is critical for a successful transformational change—going from a cafeteria approach to a guided pathway design. This organizational change would require utilizing all available skills
outlined in Levin’s (1951) three-stage change theory, the ‘unfreeze-change-refreeze’ model. Levin’s theory is about first getting all stakeholders to agree that change is warranted, which is unfreeze. Next, develop and implement the change initiative, which is change. Finally, is embedding the change into the organizational culture—refreeze.

Sixth is the economic impact of changing from a cafeteria plan to a guided pathway initiative. The research suggests that “improvements in student retention and progression will also increase revenue, but our model suggest that any revenue increase may not entirely cover the increase in costs” (Bailey et al., 2015). The authors went on to recommend finding a fix for the possible loss of revenue by working with local legislatures to fund such a project, because the long-term benefit both for the student and the institution is of great value.

More broadly, the cafeteria plan has historically been and still is the bedrock of community colleges. It has shaped the culture of community colleges. Students are afforded the ability to find a course that is beneficial to their academic interests, whether it is for a trade or degree program. It allows students to feel like they were mostly in control of their educational journey. However, as state and local governments demand more and more accountability with the resources given to community colleges, leadership will need to find better ways to educate the populous. Privileged to have worked for over 60 years combined, the authors (Bailey et al., 2015) postulated that a study for discovering a new plan for administering coursework could be best suited for a guided pathway approach. The guided pathway plan is based on pre-mapped courses, integration of instruction and support services, reallocating resources to support the guided pathway approach, and using data mining to monitor the success or lack thereof of this plan. It is crucial, then, to keep in the forefront the barriers and pitfalls of the guided approach.
The authors (Bailey et al., 2015) discovered that the obstacles to entry are not only due to choosing course or the lack thereof, but the extreme challenges community college students face, such as employment, lack of academic discipline, and other distractions. Furthermore, there is the possibility of the increasing costs of the guided pathway coursework, thereby, possibly preventing some students from attending due to final constraints. These impediments may discourage some students from embarking on attending college.

One other aspect that affects enrollment that is more challenging for community colleges than universities, and by extension the financial difficulties of community colleges, is how to approach marketing (Fraser, 2014). Clagett (2012) found that “The broad mission of a comprehensive community college and the diversity of reasons students attend creates marketing challenges beyond those faced by most baccalaureate institutions” (p. 49).

Another method could be the use of “market needs assessments, target market segmentation, curriculum product development, pricing and delivery strategies, campaign conceptualization and development, message and media choices” (Clagett, 2012, p. 61). These financial options expose the available resources for community colleges. Four-year colleges or universities might consider these options as viable reasons to invest in a two-year college as a possible economic benefit to both parties. Finally, for such a proposal to succeed, a transformational change plan should be undertaken. Otherwise, merging two very different cultures could create enormous challenges.

Another approach is the use of tuition models that Friedel and Thomas (2013) called a “Differential Tuition” model. This type of model, which is essentially used in four-year colleges and universities, needs to be considered by leaders in community colleges. A particular change plan would be required to implement such a program because it might be shocking to students
and parents to consider paying more tuition. Change cannot be done haphazardly. There must be a coordinated plan to put differential tuition into action.

This differential tuition policy is predicated on prices that are based on the course being offered while moving away from a one-price-fits-all model. For example, the tuition for information technology (IT) class would be dissimilar from a general-education course. For example, the IT could be $300 per credit hour versus a general education course at $250. Although specific courses drive this example, and not by the program, doing so in a community college is easier, just because not all its courses are connected to a program. However, this is not to imply that differentiation pricing for programs is not suggested—it is. Changing over to this type of plan would require a slow adjustment so that students and parents can adjust to the new normal. A drastic change of putting such an idea into practice could be destabilizing for the institution.

Friedel and Thomas (2013) study also looked at how differential tuition models are used and whether it is the best methodology to offset declining governmental financial support. The article, therefore, considers the broader implications of instituting this type of model. So, Friedel and Thomas (2013) posit that the model would recognize the competing forces, or for that matter, the possible battle within and outside the community college for additional revenue.

The findings gathered by Friedel and Thomas (2013) was confirmed by “The state directors [who] reported that they could confidently recommend differential tuition as an alternative fiscal strategy” (p. 151). The participants in Friedel and Thomas (2013) study strongly support this type of policy as an important approach to raising revenue without affecting enrollment. It is clear from the study that this tuition differentiation plan is worthwhile and beneficial for creating new revenue because principles of supply and demand in academy are
reliable. A student who is interested in IT would be more likely open to paying more tuition than a student who is taking a liberal arts class. The IT student knows there is a higher probability that upon graduating, the salary would be greater for jobs in that field than for someone with a degree in liberal arts. Consequently, the student whose major is in IT would be expecting to pay more tuition. Moreover, the student who pays more for the IT program might view it as a better return on investment.

**Examples of Innovation through Entrepreneurial Activity at Community Colleges**

The following two examples of community colleges using entrepreneurial activity in their institutions shows how beneficial that could be for the student and the college. Both institutions have pledged to adhere to the five action steps of entrepreneurship of the National Association for Community College Entrepreneurship (NACCE) in their respective classrooms and communities.

The first is St. Petersburg College (SPC), located in St. Petersburg, Florida. Sussex (2018) wrote in NACCE’s journal that SPC “is pleased to join in partnership with Clearwater Business SPARK to offer an expanded toolkit to support the success of businesses and entrepreneurs” (p. 22). The article also pointed out how the partnership allows St. Petersburg College (SPC) to provide academic programs and other business services in collaboration with SPARK that supports entrepreneurship with the citizenry in the community. SPC used both its Workforce Institute and Collaborative Labs to support local businesses so that they “can continue to thrive” (Sussex, 2018, p. 22). Moreover, SPC’s approach allows the college to connect with businesses in the area, which could then be used to help graduates find employment more easily at the companies in the community.
The second college is Big Sandy Community and Technical College (BTSCTC), located in Pikeville, Kentucky. According to an article, “Two Community Colleges Partner of Pledge” in the NACCE 2018 Spring/Summer journal, “BSCTC was recently selected as one of the expansion colleges in the Verizon Innovative Learning (VIL) program” (p. 8). The program is geared to middle-school girls for STEM education in rural areas during summer camps as a three-week program that includes monthly mentoring on a continuous basis. BTSCTC also “received a grant to celebrate National Entrepreneurship Week” (NACCE, 2018, p. 8). What is so intriguing about this entrepreneurial activity is the involvement of K-12 learning environments in the community participating with the college by starting the program for children in third grade.

**Fostering Innovation – A Distributed Leadership Approach**

Spillane (2005) hypothesized that “distributed leadership is first and foremost about leadership practice rather than leaders or their roles, functions, routines, and structures” (p. 144). It is leadership through the distribution of power where innovation and entrepreneurship can foster a spirit of new ideas from varying voices. A leadership is participative that “involves efforts by a leader to enlist the aid of others in making important decisions” (Yukl, 1989, p. 105).

Gibb (1954) edited by Lindzey (1969) first theorized while propagating group dynamics that distributed leadership, which he posits also means focused leadership is the best style necessary for cohesiveness, and by extension group success. Moreover, “If there are leadership functions, which must be performed in any group and if these functions may be ‘focused or distributed,’ then leaders will be identifiable both regarding the frequency of functions performed” (Lindzey, 1969, p. 884). Hence, distributed leadership provides one of the best opportunities for team empowerment, similarly, to what Google has perfected in becoming one
of the most successful organizations today. Gibb (1954) indicated, “If there are leadership functions, which must be performed in any group and if these functions may be ‘focused or distributed,’ then leaders will be identifiable both regarding the frequency of functions performed” (p. 884).

Spillane (2005) theorizes, “Distributed leadership is first and foremost about leadership practice rather than leaders or their roles, functions, routines, and structures” (p. 144). Therefore, distributed leadership as he proposed is not about how tasks are completed, but it is a methodology to lead or empower others to perform given responsibilities. Spillane (2005) went on to suggest that although distributed is a suitable type of leadership, it is antithetical to authoritarianism. Furthermore, Spillane (2005) cautions its readers that distributed leadership is not a panacea. So, then what is the practicality of distributed leadership?

It is a concise and strategic approach to leadership that is best applied “through the interaction of vertical, horizontal, emergent and other forms of social influence” working collaboratively with a variety of groups (Bolden, 2014, p. 409). Of course, in all leadership models, there is a final decision-maker. But the decision may include the voices of all in the decision-making apparatus. The success or lack thereof of the decision is then possible due to everybody having a view—there was a process that engages every organizational layer and is funneled up or vertically to create the final product.

Pea (1993) proposed that “The primary sense of distributed intelligence arises from thinking of people in action” (p. 49). “Distributed intelligence” is the cognitive underpinnings of “distributive leadership,” which is suggestive that it is advantageous to an organization when groups of people are working collaboratively for a particular end. It maximizes the collective skills and talents of all involved in the process and with all taking full advantage of the
intelligence bandwidth of a larger pool of the institution’s workforce. In doing so, not only is there increased innovation but also increased employee job satisfaction. When everyone can share the success, it empowers workers to innovate and become small groups of entrepreneurs within an organization. Brown and Hosking (1986) suggested, “Whether focused or distributed, leadership characterizes social organization, and is recognized in participants shared a sense of social order” (p. 76).

Soberingly, Gronn (2000) postulated “that most of us still labour under serious misapprehensions about its nature” (p. 317), referring to distributed leadership. Still, leadership practices might invariably become distributed, because of the inherent benefits of shared responsibility. When everyone is participating with the tasks within the organization, leadership in a distributed format could be the springboard for a flourishing business.

Please note, the writer is not suggesting that “distributed leadership” is the only style that promotes innovation. Bligh, Kohles, and Pillai (2011) even suggested from their extensive research that there are so many nuances on the topic. For example, another type of leadership is the “leader-centered view” (Bligh, et. al., 2011; p. 1062), meaning the leader is the de facto beneficiary of an organization’s success and less so of its failures. An example of that is Jack Welch, who was the CEO of General Electric for 20 years. Bligh et. al. (2011) states, “Empirical research has demonstrated that this tendency is strongest for more extreme situations, such as very high or low levels of organizational performance” (p. 1062). So, one can agree that Welch fits that type of leadership.

Next, is the “follower-centered approach” (Bligh, et. al., 2011; p. 1062), referring to leaders being admirable or reasonable and thus able to get followers to believe in their mission. President Barak Obama is an example of this approach when he first ran for president. Then,
there is the “social constructionist view” (Bligh, 2011, p. 1068) that is similar in the follower approach, which is primarily based on a charismatic-type of leadership. Examples of these type leaders are Martin Luther King, Jr., John F. Kennedy, and President Reagan.

On the other hand, emerging leadership could be based on what Google and other companies have done that emphasize distributed or shared leadership. Then again, as Bligh et al. (2011) argued, citing Meindl and Ehrlich (1987), “Leadership might be more illusionary than real” (p. 1073).

A critical factor in leadership is considering the cultural dynamics. Yukl (1989) noted, “Leaders are increasingly confronted by the need to influence people from other cultures, and successful influence requires a good understanding of these cultures” (p. 61). Considering the importance of appreciating other cultures and studying cross-cultural leadership as Yukl (1989) identified, we could agree that research for discovery is of enormous value as it relates to the application of leadership approaches.

**Summary**

The thinking by many scholars and others is that higher education is going to face enormous headwinds in the future, or for that matter, it is already experiencing those challenges. The public is already complaining about the costs of college, while others are questioning the return of investment in obtaining a college degree. Hence, entrepreneurial education, both operationally and academically, could provide the necessary redesign of two-year higher learning institutions. This initiative could reshape academia, particularly as it relates to community colleges, by revitalizing higher learning institutions into high-performing organizations that work for the greater good of the community they serve, as well as for their own long-term sustainability. On the other hand, the complexity of the subject and the lack of credible
scholarship on the entrepreneurial educational approach suggest that more can be done to further
the discovery of how to best institute an entrepreneurial spirit in higher education.

Although according to the National Center for Education Statistics (2007) suggests that
there was a 32 percent increase in enrollment between 2001 and 2011 in all higher learning
institutions in the U.S., globalization may begin to chip away at this result. Moreover, it is
incredible to think that only 32 percent of graduating high school seniors are enrolling into
college. This issue is problematic because the jobs of the future will require more a highly skilled
and trained workforce. Community colleges could play an integral role in educating the next
generation as skilled workers, who can fill the jobs of the future, but as well prepare those
students who desire to do so to pursue a four-year degree. Ramson (2014) suggested, “College
students will face a workplace transformed even from the one that existed five years ago” (p.
159).

Accordingly, “Student entrepreneurship serves as a critical gateway for universities to
comprehensively embrace innovation and entrepreneurship” (U.S. Department of Commerce,
2013, p. 17). What is so fascinating is that instead of relying on venture capitalists to fund new
inventions, universities become the laboratory for creating new concepts. So, instead of
preparing students to leave after completing college to find investors to fund their inventions, the
university or college spearheads those efforts during the student’s academic journey. Higher
education entrepreneurship is particularly important now because “need to collaborate with
industry has grown in importance as access to federal funding declines” (U.S. Department of
Commerce, 2013, p. 17). A collaborative approach between businesses and community colleges
positions the academic institution to become the solution for the jobs of the future. Moreover, it
prepares students to become entrepreneurs before the completion of their degrees, which leads to the development of new products, services, and business entities.

To accomplish these types of entrepreneurial approaches in a higher learning educational setting such as the community college, leaders must be willing to support and foster them in a meaningful way at their respective institutions.
Chapter III: Research Design

This research project is focused on how leaders fostered and supported entrepreneurial activities at their respective community colleges. The purpose of this chapter is to present the qualitative research methods used to show the relevant data necessary to explore the focus of this study. The researcher will present the proposed methodology including how participants will be identified and pursued, data collection and analysis methods, and issues of trustworthiness.

Methodology

The two research questions guiding this study are

1. How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them?
2. What leadership strategies, structures, and use of resources do community college leaders employ in their colleges to foster and support innovation and entrepreneurial activity, as presented by the leaders, administrators, and faculty of the colleges?

Research Paradigm

The research paradigm for this study is constructivism-interpretivism. What then is constructivism-interpretivism? According to Ponterotto, “constructivists hold that reality is constructed in the mind of the individual, rather than it being an externally singular entity” (p. 129). The perspective from an individual point-of-view suggests his or her reality colors a person's view. That reality is based on one’s cultural code and, one’s life experiences.

Therefore, this research paradigm considers the realism about human nature. Constructivists are not constrained by the concept of considering the complexities of human discourse in its study. What one’s reality is may be different than someone else’s truth. The essence of this perspective is that the research becomes more of a real-life data point. The
acceptance of human dispositions strengthen the results of the examination. Again, Ponterotto (2005) suggests, “a distinguishing characteristic of constructivism is the centrality of the interaction between the investigator and the object of investigation” (pg. 129). Ponterotto (2005) went on to say that “Only through this interaction can deeper meaning be uncovered” (pg. 129), which implies that constructivism considers the human interaction between the contributors and the researcher that solidifies the empirical value of the research.

What is more, Ponterotto pointed out “Kant’s (1881/1996) Critique of Pure Reason” (pg. 129) perspective of constructivism-interpretivism. Kant suggested, “human perception derives not only from the evidence of the senses but also from the mental apparatus that serves to organize the incoming sense impressions” (pg. 129). Kant is suggesting that the human mind is shaped according to its own experiences and cultural makeup, and therefore, a perception of a given subject is colored by one’s encounters. For example, one’s responses to a study or understanding of a subject are different than another person’s viewpoint of that matter. There are going to be distinctive shades of perspectives within the context of a given issue.

Moreover, according to Ponterotto’s interpretation of Sciarra, 1999, “Kant’s work highlights a central tenet of constructivist thinking: that you cannot partition out an objective reality from the person (research participant) who is experiencing, processing, and labeling the reality” (pg. 129). Indeed, one cannot ignore the human element in research – it exists. Besides, realism is unavoidable, if one was to consider that some research is done using either the qualitative or quantitative research mechanism, within the sphere of human responses to the study. Ponterotto posits that “Dilthey (1894/1977) believed that every lived experience occurs within a historical, social reality” (p. 129). Hence, if one were to accept Dilthey’s position, then one would agree that the humanness is inescapable in research. With that said, “Understandably,
the constructivist-interpretivist paradigm provides the primary foundation and anchors for qualitative research methods” (Ponterotto, pg. 129). Indeed, qualitative research involves recording the responses that emanate from the research participants based on the given questions.

**Research Design – Qualitative Case Study**

Qualitative research was determined as the necessary approach for this research project. The objective is to explore how the heads of the colleges in this study fostered and supported the innovative methods used. Even though the focus of the field study is based on the policies, structures, and approaches used by the respective leaders of the colleges, the experiences by other administrators and faculty will also be vital for a balanced perspective of this study.

Baxter and Jack (2008) write, “Qualitative case study is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources” (p. 544). This exploration with the use of a diverse dataset provides a rich collection of facts that would be useful in gaining a wider understanding of the phenomenon. It is a way to deepen the study’s review of entrepreneurial education derived from a real-world setting. Moreover, “One of the advantages of this approach is the close collaboration between the researcher and participant (Baxter & Jack, 2008, p. 545),” which allows for follow-up questions and further understanding of the phenomenon.

As entrepreneurial activity in community colleges is relatively new in higher education, “Qualitative research is best suited to address [this] research problem in which you do not know the variables and [the] need to explore” (Creswell, 2012, p. 16). The goal is to gather data from practitioners who understand the complexities of putting into practice entrepreneurial projects that were both successful and unsuccessful. Consequently, the type of case study is descriptive. It is a type of case study used to describe an intervention or phenomenon and the real-life context
in which it occurred (Yin, 2003). It is so that the actual events discovered from the qualitative case study support the discussions of the findings.

Why a qualitative study? There are six characteristics of qualitative research. The first is exploring a problem and developing a detailed understanding of a central phenomenon (Creswell, 2012). This exploration is so that the reader can contextualize in real terms how the phenomenon can be applied in one’s environment. It is a way for greater clarity of a situation that has occurred or is occurring.

The second characteristic is having the literature review play a minor role but justify the problem (Creswell, 2012). Chapter IV of this study will then play a significant role in validating the research project because of the value the participants have in bringing to light the efficacy of how entrepreneurial education resolves the problem of practice. But this in no way diminishes the usefulness of the literature review.

The third characteristic, stating the purpose and research questions in a general and broad way to the participant's experience (Creswell, 2012) is germane to a qualitative study. The participant will be more able to respond to the questions due to having a broader understanding of what the researcher is trying to ascertain from the participant’s knowledge of the subject. The more the participants know the purpose of the question, the more likely the desired response is verified.

The fourth characteristic, collecting data based on words from a small number of individuals so that the participant's views are obtained (Creswell, 2012) is essential for preventing diffused data similar to what happens with a larger pool of individuals. The tight data-set could then be useful for a focused study, such as found in case studies for more significant
impact with this type of problem of practice. Furthermore, the quality of the research gleaned from the participants could provide a deeper understanding of the subject.

The fifth characteristic, analyzing the data for description and themes using text analysis and interpreting the broader meaning of the findings (Creswell, 2012) is used to go beyond the import of the individual responses. This approach is for providing a more general view of the participant’s responses to the questions. The goal is to expand on their answers for a more comprehensive finding. Huberman, Miles, and Saldana (2014) suggested reports may not be compiled into factually accurate accounts but rather serve as a corpus from which the researcher actively selects, transforms, and interprets the material at hand. So the body of data gathered informs the researcher’s interpretation of the given text, which could be derived from body language and other non-verbal responses.

The sixth characteristic is writing the report using flexible, emerging structures and evaluative criteria, and including the researcher’s subjective reflexivity and bias (Creswell, 2012). This author spent most of his career in manufacturing, so he has a unique perspective as it relates to how entrepreneurship is used in that environment and the relationship value in higher education. Thus, as the researcher, there will be some subjective reflexivity and bias, as Creswell (2012) noted, included in the findings. Notwithstanding, these biases will be placed on the participant’s responses to the questions. Essentially, more weight is placed on the respondent’s actual narratives. And doing so with the objective of reducing the researcher’s biases.

**Site and Participants**

For this study, there were two sites, and the leaders identified at each institution are the participants. These sites were pursued based on a cursory evaluation of their innovation and entrepreneurial activity at each institution. These two community colleges were chosen because
they were recognized as institutions demonstrating entrepreneurship as a college of excellence by the National Association for Community College Entrepreneurship (NACCE) member colleges as stated in NACCE’s spring/summer 2018 publication. The criteria for the College of Excellence Awards are as follows: “Create or expand internal and external teams dedicated to entrepreneurship; increase entrepreneurs’ engagement in community colleges; engage in industry cluster development; leverage community college and community assets to spur innovation and job creation; and create buzz and broad exposure of your college’s commitment to entrepreneurship” (NACCE, 2018).

The two colleges are North Iowa Area Community College – Mason City, Iowa, and Mid Michigan Community College, Harrison, Michigan. What about these two colleges, beyond their awards from NACCE, is useful for this study?

College A: North Iowa Area Community College located Mason City, Iowa, has five community education centers in Charles City, Garner, Hampton, Lake Mills, and Osage Iowa. The main campus includes a housing complex, so that students can live on campus. The campus was beautiful, and well maintained according to the researcher’s impression of this campus. The campus was rural but not far from major highways. According to its webpage, North Iowa Area Community College is ranked #14 in the nation for student success, according to a June 2012 article published on CNNMoney.com. The college is also ranked in the top 120 community colleges by the Aspen Institute College Excellence Program May 2012. Its “Facts” page also notes that it has “40,404 entrepreneurship program participants” (College A).

North Iowa Area Community College includes the John Pappajohn Entrepreneurial Center, which provides entrepreneurship education, entrepreneur and business support and partnerships to stimulate entrepreneurship. The center’s services include business startup and
expansion services, technical assistance, access to capital – seed and venture funds through the Wellmark Venture Capital Fund, creating entrepreneurial communities and regions, and educating the next generation. The college also has the NIACC Performing Arts & Leadership Series on its campus.

The participants for College A.

Mid-Michigan Community College is located in Harrison, Michigan. Their sister campus is located in Mt. Pleasant, Michigan. Both state-of-the-art campuses are set in a rural area of North Central Michigan. Because of the college’s location, they have had to rely on online programs to provide academic services to the large area that they serve.

The college, through its foundation, sponsors a Rust Shaker Mountain Bike Race, Sweat Shaker Mountain Bike Race, BBQ & Fall Festival, Car, Truck, and Bike Show, and the Timber Trail Race every year. Many of these activities are part of their entrepreneurial activities. The Phi Theta Kappa Honor Society is also located on its campus. This society allows students to network while on campus and after graduation. The college also has a Michigan Small Business Development Center where most of its entrepreneurial activities are spearhead in concert with its Workforce Development Center.
Table 3.1

Study Participants

<table>
<thead>
<tr>
<th>Community College</th>
<th>Participant and Pseudonym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Madison City Campus</td>
<td>College A President</td>
</tr>
<tr>
<td></td>
<td>College A DI</td>
</tr>
<tr>
<td>Harrison Campus</td>
<td>College B President</td>
</tr>
<tr>
<td></td>
<td>College B VP</td>
</tr>
<tr>
<td></td>
<td>College B ASVP</td>
</tr>
</tbody>
</table>

Sampling Procedures

The participants for this study were enlisted using a purposive and snowball or chain sampling process. Creswell (2013) states that sampling for qualitative studies should seek participants who can “purposefully inform an understanding of the research problem and central phenomenon in the study” (p. 156). The senior-level gatekeepers will be consulted for the study due to their vast knowledge of the formal and informal responsibilities at the organization. The consultation process will then form the impetus for new participants who were key stakeholders at the company. The hope in this snowballing effect is to gather the other staff and or faculty members who were instrumental in establishing the entrepreneurial initiatives at the respective colleges. After approval was obtained from the Institutional Review Board (IRB) the participants were enlisted by the following steps:

1. A preliminary phone call was made to the office of the heads of school for interest in the study.

2. After receiving the preliminary interest from the participants, a phone call was followed up with a letter explaining the project with an official request for their
participation in the study. The letter included a consent form and the guide of the interview.

3. After gaining acceptance from the heads of school as participants of the study, requests were made to determine if there were any additional staff or faculty members involved in the entrepreneurial initiatives at the college who may be interested in participating in the study.

4. Those identified as possible candidates, were sent an email.

5. An official consent form was presented at the beginning of the interview.

6. A complete listing of the participants was created, and an email sent to set interview dates.

The researcher took steps to certify the protection of all participants. After appropriate approval from Northeastern University’s Institutional Review Board (IRB), the researcher began the data collection process. Before the data collection process commenced, the signed consent forms were collected.

The samples were based on semi-structured interviews that included leaders who are experts in educational entrepreneurship. The sample was a purposive approach for identifying participants based on the recommendations made by Miles and Huberman (1994), and Patton (2002).

Data Collection

After Northeastern University’s IRB approval, the data collection commenced. This study used two colleges that “braided together to promote a greater understanding of the case” (Baxter & Jack, 2008, p. 554).
The data collected was analyzed using a structured coding framework that was developed by Miles and Huberman (1994). Also, the triangulation method (Mathison, 1988) with patterns and trends formed the comparison between the interview analysis and the nature of community college entrepreneurship education. The purpose of triangulation is to ensure against bias, that research is assembled from numerous sources and used to discover additional resources or individuals for this study.

Three onsite interviews were conducted with the identified experts in educational entrepreneurship. Presidents were interviewed for 45 – 50, and Administrators for 35 – 45 minutes. All interviews lasted more than the allotted time without complaints from the participants. A request was made for each interview to be held in a classroom or conference room to decrease the possibility of distractions from telephones and computers. The researcher took notes and use a recording device that was approved by the participants for the interview. An interview guide was used and included an assortment of open-ended questions to obtain a comprehensive understanding of how the heads of the school were able to foster and support innovation.

Additionally, documents or resources directly related to the innovation methods were requested. The material could be inclusive of course materials, catalogs, enrollment and marketing materials electronically and printed, and any other documents that are useful for this study. The objective is to “use multiple sources of evidence, create a case study database, and maintain a chain of evidence” (Yin, 2003, p. 114 – 122) to support data collection.
Table 3.2  
**President Interview Guide**

**Section A Questions**

**Descriptive Information**
- As the President of your Community College, how would you describe your responsibility and role here?
- How long have you been here?
- Where were you before coming here and what did you do?

**Section B**  
The focus of my study is on how a community college can think and act entrepreneurially and how leaders of a community college can foster and support entrepreneurial activity in a community college. Your college has been identified as being entrepreneurial.

1. Do you consider your college to be entrepreneurial? And how so?
   - Can you give me some examples – 3 to 4 examples?

2. How do you see your role in fostering and supporting entrepreneurial activity in your college?
   - Could you give me 2 or 3 examples of how you have done that and/or are doing that?

**Section C**  
Now I want to spend some time talking about the approaches used to foster and support such entrepreneurial activities. And your role in the school’s efforts to pursue or not pursue innovation at your school. Let’s start first with a (wink-wink) easy question:

3. What are the two or three most important ways of thinking, leading, or working at a community college for it be entrepreneurial? Examples and why it is important?

4. To what degree do you think collaboration is important for the college to be entrepreneurial?
   - What kind of collaboration? Who is collaborating? Do you think there is something that you do to ensure that the kind of collaboration that needs to happen is happening so that the college can be entrepreneurial?

5. Can you speak to the importance of looking for either internal and/or external opportunities to be entrepreneurial? How important is it to look at external and/or internal opportunities to be entrepreneurial? Can you give me some examples of how the college has taken advantage of some internal and/or external opportunities to be entrepreneurial?

6. How important is it to consider the degree to which the entrepreneurial activity will be revenue generation? Could you provide examples?

7. What advice would you have for other community college presidents on how to effectively foster and support entrepreneurial activity in their schools?
   - Where should they begin if the entrepreneurial activity is not a priority within their school?
   - What is the role of the leader in this work? Of others?

8. Is there anything else you would share about your work at your school in support of innovation?
Table 3.3

**Interview Guide with Provost/Dean/Director/Administrator/Faculty**

<table>
<thead>
<tr>
<th>Section A</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Descriptive Information</strong></td>
<td></td>
</tr>
<tr>
<td>• Tell me about your position, role, and responsibilities here in the community college.</td>
<td></td>
</tr>
<tr>
<td>• How long have you been here?</td>
<td></td>
</tr>
<tr>
<td>• Where were you before coming here and what did you do?</td>
<td></td>
</tr>
</tbody>
</table>

**Section B**

*The focus of my study is on how a community college can think and act entrepreneurially and how leaders of a community college can foster and support entrepreneurial activity in a community college. Your college has been identified as being entrepreneurial.*

1. Do you consider your college to be entrepreneurial? And how so?
   - Can you give me some examples – 3 to 4 examples?

2. How do you see your role in fostering and supporting entrepreneurial activity in your college?
   - Could you give me 2 or 3 examples of how you have done that and/or are doing that?

**Section C**

*Now I want to spend some time talking about the approaches used to foster and support such entrepreneurial activities. And your role in the school’s efforts to pursue or not pursue innovation at your school. Let’s start first with a (wink-wink) easy question:*

3. What are the two or three most important ways of thinking, leading, or working at a community college for it to be entrepreneurial? Examples and why it is important?

4. To what degree do you think collaboration is important for the college to be entrepreneurial?
   - What kind of collaboration? Who is collaborating? Do you think there is something that you do to ensure that the kind of collaboration that needs to happen is happening so that the college can be entrepreneurial?

5. Can you speak to the importance of looking for either internal and/or external opportunities to be entrepreneurial? How important is it to look at external and/or internal opportunities to be entrepreneurial? Can you give me some examples of how the college has taken advantage of some internal and/or external opportunities to be entrepreneurial?

6. How important is it to consider the degree to which the entrepreneurial activity will be revenue generation? Could you provide examples?

7. What advice would you have for other community college presidents on how to effectively foster and support entrepreneurial activity in their schools?
   - Where should they begin if the entrepreneurial activity is not a priority within their school?
   - What is the role of the leader in this work? Of others?

8. Very important now … What do you think is most important for a community college president to do to support and foster entrepreneurial activity in a community college?

9. Is there anything else you would share about your work at your school in support of innovation?
Data Storage

The researcher transcribed audio files using a transcription service. A review was done by the researcher to check for errors. Also, member-checking of the participants was included to confirm data matched the researcher’s transcribed document. All note taking was done using a laptop and was stored on the researcher’s hard drive and a password protected cloud storage service that is protected by passwords. A logging system was used to maintain the participant names and pseudonyms in a separate folder in the researcher’s hard drive, and online cloud service which is protected by passwords. All stored documents both non-electronic and electronic are only accessible by the researcher. It is also expected that the researcher will journalize reflective responses from the participants, such as body language, environmental conditions, and any other useful conditions of the interviewing processes.

Data Analysis

A detailed analysis commenced after the completion of all data documents. As a start, initial coding was used for observation and further review of the data. Saldana (2016) proposed that “initial coding creates a starting point to provide the researcher with analytic fields for further exploration” (p. 115). This process was useful in creating an opportunity to discover any variances and likenesses in the data. The data are stored using MAXQDA coding system, which is used for data automatization. Coded segments were created in the MAXQDA, and the data was exported into an Excel file for further review. The data collected from the interviews allowed for explicit evaluation of the university’s entrepreneurial practices. The transcription included the protocol.

After the initial coding, focused coding was used to discover patterns. The objective for this second cycle coding “is to develop categories without distracted attention at this time to their
properties and dimensions” (Saldana, 2016, p. 240). It suggests that removing the distractions produce a more precise picture can be discerned from the data. Also, data were color-coded to create further separation for increased clarification. After completing this process, the following would establish the findings, discussions, and conclusions of this field study.

Table 3.4

Overview of Data Collection and Analysis Methods

<table>
<thead>
<tr>
<th>Stage</th>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection</td>
<td>Documentation</td>
<td>Collected Key Documents, Including</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Key Sections from Annual Report for the Entrepreneurial Center</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Key Sections from PowerPoint on Data Discussion for Workforce Development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Course Catalog</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Academic Programs related to Guided Pathways</td>
</tr>
<tr>
<td></td>
<td>Semi-Structured Interviews</td>
<td>Conducted 5 Semistructed interviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Used purposeful and snowball or chain sampling process from each unit type (college leader, administration)</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>Single-Source</td>
<td>Once all data were collected and transcribed using a transcription service, used MAXQDA to import transcribed data for coding.</td>
</tr>
<tr>
<td></td>
<td>Cross-Source</td>
<td>After importing data, developed color coding to organize data that created 713 codes, 27 segments, with two sets for each research question, then exported to Excel for further analysis, along with hand-coding for each theme related to each research question</td>
</tr>
</tbody>
</table>

Trustworthiness

As a way to validate the integrity of this study, the following requirements were used by the researcher to assure the readers that the data accurately documented the phenomenon under study:

1) The research adopted the methods well established in the qualitative investigation (Shenton, 2004, p. 64) as the first step in making this research document trustworthy.

So, the way the questions were asked and the data gathering methods used were based on recognized qualitative types of research.
2) Discovering the ethos of the participating colleges before any data is was collected (Shenton, 2004, p. 65). Doing so required pre-site visits, preliminary discussions with the heads of the school or other representatives of the institution.

3) As was stated earlier, the triangulation method was used derived from possible “focus groups and individual interviews” (Shenton, 2004, p. 65). Supporting evidentiary documents may be gathered during and after the onsite interviews.

4) “In particular, each person who was approached were given opportunities to refuse to participate in the project (Shenton, 2004, p. 65), so that those who are interviewed feel a sense of ownership of the field study.

5) A process of iterative questioning was employed to help ensure honesty in the responses to the questions. Techniques, such as rephrasing of the questions, were used to detect possible falsehoods or deliberately misleading answers. Any sense of possible disingenuous replies were indicated in the in the research report (Shenton, 2004).

6) The researcher used recurring debriefing with heads of school to determine if other participants replies were consistent with stated institutional policies and activities regarding innovation activities (Shenton, 2004).

7) This research project was reviewed by the researcher’s thesis committee which included the Chair, second reader, and third reader.

8) Some reflective commentary was used to express any researcher impressions detected during interviews, along with other onsite visit observations (Shenton, 2004).

9) The researcher’s biases and background were identified. Also, this project received no outside funding.
10) All participants were asked to read the related transcripts after they received the final edit of the document from a transcription company to confirm its accuracy (Shenton, 2004).

11) In this study, the thick description was used for the phenomenon under study (Shenton, 2004). According to Mills, Durepos, and Wiebe (2010), thick description is a procedure of paying attention to the contextual value in perceiving the interpretation of social meaning while conducting a qualitative study.

12) An examination of Kennedy’s (2013) and Judd’s (2017) thesis study was used to “asses the degree to which the project’s results are congruent with” (Shenton, 2004, p. 69) these research findings.
Chapter IV: Research Findings

The purpose of the study is to discover how college presidents and administrative leaders understand their roles in fostering and supporting innovation at their institutions. The research findings fit within the framework Clark’s (1998a) entrepreneurial theory of fostering and supporting entrepreneurialism in a higher education institution. The participants used for this study were able to show how Clark’s (1998a) entrepreneurial theory was essential in creating strategic imperatives for developing and sustaining good entrepreneurial activities. So, based on the theoretical framework, the study examined the following two research questions:

1. How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them?
2. What leadership strategies, structures, and use of resources, do community college leaders employ in their colleges to foster and support innovation and entrepreneurial activity, as presented by the leaders, administrators, and faculty of the colleges?

The goal of this chapter is to indicate the process used for the data collection, the demographics of the participants, and to analyze the results of the study sites as it relates with themes from each research question.

Summary of Study Sites

Community College A. College A has a long history of entrepreneurial activities due to its Entrepreneurial Center located on-campus. The director of the center has extensive experience in business and has been at the center since July 2000. He brings a unique set of business skills, along with experience working the academic wing of the college. Throughout the interview, he explained how those skills helped create synergy between the college and local businesses.
College A is in a rural area of the state and serves “about nine counties in that service area.” The college is part of “15 community colleges in Iowa.” The college has on-campus boarding for students who may reside too far from campus or chooses to stay in the dormitory. Moreover, the school also has a performance arts center, which according to the president annually ends with a positive net position. According to the director, the entrepreneurial center also boasts “79% success rate of new startups that make it to the first five years. Across Iowa, it is only 51%, and nationally it is only 49%. So, we work to really help create sustainable businesses.” The Center also sponsors an annual Gala that includes an award ceremony for its “Neal Smith Entrepreneur of the Year Award.” On the center’s website, it states, “We are growing Iowa’s entrepreneurial culture through grade school initiatives, college and community programs, and business training and development.” Although the college is in a rural area, it is still a significant participator in the entrepreneurial activities of the State.

**College B.** College B, like College A, is in a rural area of the state, although unlike College A, is in the early stages of developing an entrepreneurial ecosystem at the institution. Although the college “brought on the Small Business Development Center several years ago, that helped shift the focus a bit more towards entrepreneurialism”, the school did not have the type of support by its previous presidents necessary to build a sustainable entrepreneurial ecosystem. According to the president of College B, “I think we are on a good path toward being more entrepreneurial.” So, the president and administrators are very committed to fostering and supporting entrepreneurialism at the school. For example, in its Corporate and Continuing Education department, it provides short-term training, professional development, customized training for business and industry, internships & apprenticeships, lifelong learning, and its Michigan Small Business Development Center.
According to College B VP, “there are 82 counties in the state of Michigan. We actually service students from 72 of those.” The school serves a large area of Michigan, which requires some innovation to be able to serve its students that may have to travel over 100 miles if they were to come on campus. One way to mitigate this issue is to offer online programs and other off-campus initiatives. The College B President also mentioned that the college also has a Phi Theta Kappa Honor Society on campus that helps to maintain connectivity between students and the school, and beyond. Also, the college has a “Guided Pathway” program that locks students into their desired program for the duration of the study, which helps them to complete their degree within a set amount of time.

**Summary of Participants**

The participants for this study were college presidents and administrators for two community colleges. Each college served a large area beyond the local community where the schools reside. Although both colleges are similar as it relates to its core mission providing two-year degrees, certificates, and other technical training, they differ in term of the level of entrepreneurial activities, and the community they serve, though they are both rural communities.

College A participants were the college president and director of the Entrepreneurial Center. The College B participants were the president of the college, vice president of Community Outreach and Advancement, and associate vice president for Workforce and Economic Development. The college president for both institutions recommended the administrative leaders as prospective participants. After contacting the administrators via email, they all agreed to be interviewed for the study. At College A, the leader’s respective assistants scheduled the onsite visits with changes due to school closures due to a snow. Moreover, at
College B, the respective assistants coordinated with the president’s assistant to schedule the onsite visit.

Both college presidents have been at their respective school for approximately five years and have extensive experience in the education industry. The respective administrators have been at their institutions for over ten (10) years each. These administrators also bring both business and academic experiences to their roles. The demographics of the participants for College A were both white males, and for College B, one was a white female and two white males.

**Data Analysis Process**

The data collection was done through face-to-face interviews at each respective college campus. Individual interviews were conducted with the college presidents and administrators. The questions used were open ended and mostly focused on the two research questions. The participants were encouraged to speak openly with no time limit for their responses. They were encouraged to go into detail with each response. Although the college presidents were allotted 45 – 50 minutes per interview, and the administrators 35 – 45 minutes per interview, both groups went beyond the agreed time.

Analysis of the face-to-face interview and the documentation of the field notes began soon after the conclusion of the meetings. Afterward, a transcription service (Rev.com) manually transcribed the audio recordings. During the interview meetings, the researcher took notes, which also provided additional noteworthy observations. As a start, Initial Coding was used for observation and further review of the data. Saldana (2016) proposed that “Initial coding creates a starting point to provide the researcher analytic fields for further exploration” (p. 115). This process was useful in creating an opportunity to discover any variances and likenesses in the data. Coded segments were created in MAXQDA, and the data were exported into an Excel file.
for further review. The data were stored in MAXQDA coding system and used for data automatization. From this process, 713 codes were created. These 713 codes were created using a multi-step coding process that included descriptive coding, in vivo coding, and category grouping. Themes were then developed and used to isolate key data that coalesced with the research questions. The data were derived from interviews of five participants, which allowed for an explicit review of the College’s entrepreneurial practices. The transcription is included the protocol.

After Initial Coding, Focused Coding was used to discover patterns. The objective for this second cycle of coding “is to develop categories without distracted attention at this time to their properties and dimensions” (Saldana, 2016, p. 240). What this suggests is that removing the distractions produce a more precise picture is discernable from the data. Also, data was color-coded to create further separation for increased clarification. After completing this process, the following were able to establish the findings, discussions, and conclusions of this field study.

To support the data collection, the researcher collected an assortment of documents obtained from either the participants or directly from the college’s website. The documents were all related to the college’s entrepreneurial activities, such as PowerPoint presentations, an annual report, admissions publications, and other website contents. A process of triangulation was used to create the fundamental themes as part of the analysis of the data. For a better understanding of the colleges where the researcher collected the data, the following four paragraphs provide a summary regarding the ethos of each college.

The college president who currently “serves as an executive officer of the National Association of Community College entrepreneurs (NACCE)” began his tenure five years ago and fully committed to fostering and supporting the institution’s entrepreneurial spirit. The president
noted that “The entrepreneurial mindset is really about success and what it takes to persevere.” It is clear from that comment that entrepreneurialism is a way of life at the college – it is its DNA. College President A also commented, “One of the things that attracted me to the college was this entrepreneurial ecosystem that has been created here in North Iowa so I think by committing to that type of an organization, it sends a message that is important and that we are going to continue to support it moving forward”.

Findings

The results gleaned from the data collection process established eight themes – four for each research question. The following will identify the themes related to the research question and what the participants had to say in response to the questions used during the interviews.

Research Question 1: How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them?

The themes identified in response to Research Question #1 are as follows:

- The college leaders created policies and processes necessary for fostering and supporting entrepreneurial activities at their institutions so that they would be in a better position for long-term sustainability.
- The community college leaders shared how reduced grants and government funding would impact their institution’s economic viability, which led to the decision to embark on entrepreneurialism.
- The college leaders showed how serving the community helped to enact and sustain entrepreneurial activities at the college through a variety of economic and social activities that benefited all constituents.
The leaders of College B identified shared governance as necessary for creating organizational change for entrepreneurship at the college.

The college leaders created policies and processes necessary for fostering and supporting entrepreneurial activities at their institutions so that they would be in a better position for long-term sustainability. College A president, suggested that entrepreneurialism is about having a mindset that allows the leader to approach his/her decision-making through an entrepreneurial spirit. Having that type of mindset decodes what it is to be entrepreneurial in practice that is not hindered by the theoretical understanding of entrepreneurialism. It is a way to unhinge oneself from the internal silos in an academic environment. The president also stated that “There is going to be to two kinds of successful colleges moving forward, those that adopt an entrepreneurial mindset and those that are shrinking, that are really trying to figure out a way to keep the lights on.” From his standpoint, this type of mindset is necessary for institutional sustainability. It is a way to move away from apathy to change.

College A president also suggests that this type of mindset is not only within the sphere of one’s workplace but also in one’s daily life. An example of that is as follows, as stated by the President:

If they have a family member that’s ill, or they have a change in their appointments, all kinds of things and this entrepreneurial mindset allows them to really think like an entrepreneur, and when these challenges come upon them, they're more ready to tackle them, because you talk about how you handle failure, you talk about how you handle adversity, persistence, basically that life doesn't come easy, and if they truly, and entrepreneurs know that.
So, this entrepreneurialism mindset becomes part of one’s ethos. Also, it can be applied in both work and life’s daily activities.

An example of that mindset as portrayed by College A President is that “we have an obligation to help students to think about owning their own business or starting their own company someday.” One does not have to own a business to be entrepreneurial necessarily, but that the “mindset” is to be in a frame of mind of owning a business. So, “Whether they are in tool and die, whether they are in industrial systems technologies construction, welding, whatever. If we start to plant the seed that they can be a business owner, then the chances go up significantly that they will be prepared to do that when they start to think about it” (College A President).

Entrepreneurism is therefore in a continuous cognitive event whether an individual wants to own a business, a business owner, or as an administrator, staff, or faculty in a higher education environment – are always in that mindset.

To help develop that mindset, College A President showed how it is possible through considering these series of questions “Why not let them run this business? Let them see what a startup is like - how you write a business plan? How [do] you start to look at the upfront capital needed? What are you going to be able to charge novice plumbers? What are you going to be to charge in the market?” (College A President). The answer to these questions may be found through supporting entrepreneurship programs that provide the training to help students understand how they can create their own business, or work as an employee with an entrepreneurial mindset that creates new ideas/inventions.

These entrepreneurial activities should be supported and fostered by the colleges financial resources as well. For example, “Our business accelerator director is completely funded through local funds at this point, so I spend probably about a third of my time on that, raising
funds, and then working on continued partnerships at the local level” (College B DI). Acquiring resources derived from non-tuition-and-fees require a considerable amount of work to find local donors willing to support the mission of the college. It requires a continuous commitment of support from leadership for contributors to see the value in their investment. College A used another fund-raising approach through their “first entrepreneur gala last year [2018], and with that it was [a] fundraising event, and not only do we ask for sponsors for that event, but we ask for community sponsors, which would dedicate funding to us for a three-year period of time” (College A DI). This is another creative way to support critical fundraising.

The other aspect of supporting and fostering entrepreneurialism requires dynamic presidential leadership when stakeholders become “cautious and protective of what they have acquired, and entrepreneurship takes risks” (College B President). It is getting the workers to change their lens of thinking from risk-averse to risk-taking. College B President continued “I think another part of my role as president is to tell people it will be okay, to give them the confidence to say, yes, there is a risk to take whatever action, but there is a risk to not taking action, too.” A form of dislodging apathy, which is sometimes driven by fear. “And to point out to them that organizations, left to their own devices, tend to entropy” (College B President). The College B President went on to suggest that inaction increases the probability of organizational failure; therefore the risk is worth it. Another way to foster an environment of innovation, as pointed out by College B president is to send some employees to the “League of Innovation.” Hence, they can experience what others are doing.

Going beyond supporting entrepreneurialism requires taking the abstract viewpoint as articulated by College B President to establish the vision as College B VP suggested:
What is really critical and what a president needs to do if ... If they [do not] have that vision, or they are not good at articulating what that vision is, that people don't necessarily see the connection as to why do I have to do all of these entrepreneurial activities, I just don't see it, and then it feels more like project fatigue.

Project fatigue is a real phenomenon that plagues change efforts because the workers may view the new initiative as another pet project that does nothing to improve their lives or that of the institution.

To help ascertain one’s vision as a college leader may begin by answering these questions: “how can we look at fostering opportunities within the organization that give them the opportunities they need to become entrepreneurs? And how do you begin to go about fostering entrepreneurship in a meaningful way that begins to change the mindset of doubters of the college president and administration?” (College B AVP). He went on to suggest that “People get in their comfort zones and they do what they have always done, type of thing” (College B AVP). Changing culture is, therefore, one of the most critical aspects of fostering innovation, mainly as it was for College B to move beyond inertia towards a space of continuous innovation.

The community college leaders shared how the impact of reduced grants and government funding would impact their institution’s economic viability, which led to the decision to embark and expand entrepreneurialism. As state and local governments continue to reduce financial support for community colleges, these institutions are “going to have to figure out ways to create revenue streams to support the infrastructure that's been provided. And I think higher ed is really, for example, tuition in Iowa; we are in like in the top 10 for the most expensive community colleges” (College A President). It begins by looking “within our communities in our counties to get some support to move forward” (College A President). An
example of that is “For the first time, this last fiscal year, we have asked for support from City Council's and County Board of Supervisors and local banks and to really provide ongoing support for what we are doing. So far, they valued that and invested in us” (College A President). Because if one “sits around and wait for someone else to solve your revenue problem, how is that going for you” (College A President)? He opined that “I just have realized the challenges that you don't think about discretionary funding within the state, but you realize that education dollars compete directly with Medicaid dollars” (College A President).

College A DI also postulated that grant funding is also being cut.

After 22 years, we've used a lot of grants, and grants are not a sustainable model, so we've just recently started going out and asking for community support for our center. You have rising tuition, you have increased student debt, so we can't continue to pay for our services through increasing fees and tuition for students” (College A DI). “So, part of my job right now is fundraising for the center (College A DI).

He believes that about a third of his financial resources come from fundraising, a small amount from the college, a quarter from SBDC, and the balance from grants.

College B VP indicated that its school is using other methods to generate funding using innovative ways, such as:

For example, our community development [is part of] our continuing education. So, we offer several classes on things like some forestry types of programs, birdwatching; we have got ... We offered one recently called “Who Gets Grandma's Pie Plate,” which is kind of a strange name for sort of will planning type of thing. By who getting grandma's pie plate it is who gets it in the will, type of thing. So, we offer a variety of those types of classes.
He pointed out that although these types of programs generate some funding, they are not large revenue generators, but create goodwill within the community that could lead to getting future support from local residents and businesses. Also, these programs are “almost serving as a jump start to entrepreneurial activities because simply you are not going to survive without them” (College B VP). It is a way to begin by taking small steps into developing a more robust entrepreneurial ecosystem.

Consequently, “Tighter budgets called for becoming more entrepreneurial, and I think right now, from any time previous, this is the most heightened entrepreneurial time of the college's history I would say” (College B AVP). Interestingly, this heightened environment “forced entrepreneurial spirits to arise, if you will” (College B AVP). It is a way to motivate or inspire others to respond to the change initiative.

The college leaders showed how serving the community helped to enact and sustain entrepreneurial activities at the college through a variety of economic and social activities that benefited all constituents. As was previously noted, obtaining financial support requires both colleges to develop and maintain good relationships with its community. Both colleges in this study were innovative in finding a variety of ways to accomplish that. These community development initiatives did not always have a direct revenue generation benefit but created goodwill with its community for a possible future request for financial support. College A President defined what that looks like by indicating that “we have to really perform at a level within our communities in our counties to get some support to move forward with it.” There must be a concerted effort in utilizing an assortment of community engagements that are necessary for building goodwill. An example of that is “For the first time, this last fiscal year, we have asked for support from City Council’s and County Board of Supervisors and local banks
and to really provide ongoing support for what we are doing. So far, they valued that and invested in us” (College A President). Accordingly, without community relationship development there would be difficulty in obtaining and sustaining local governments and businesses financial support.

Another approach College A used was to “integrate a program with community leaders, with programs and yet turn a profit for the college as well and so that we can support ourselves moving forward” (College A President). For College A, it is not only seeking investments but as well “create a path a pathway for employment and startup businesses to fill the needs and void in the community. So that's one area that we have identified as a possibility” (College A President). Only depending on fundraising from the community, for example, limits the possibility of developing other revenue generating streams.

Although “There are always new programs that can be the right program, but community colleges are also conveners; it's probably one of our biggest strengths” College A DI). Engaging the community by bringing various entities together with the community college as the “convener” provides enormous exposure for the school. College A DI went on to suggest that “We can bring people together from all different spectrums. We can bring a wide variety of groups together and be that convener, where maybe sometimes those groups would not normally get together to meet to work on common goals and initiatives.” Indeed, “Community colleges are an organization that can really do that well, and within that, that alone can be very entrepreneurial in nature (College A DI). These types of approaches can be beneficial for all in the community while expanding the reach for the college. The goal for the college is to “serve the most people, where the most need is for those things, so I think that's one simple, simple way
that community college can be very entrepreneurial just by convening the various organization and communities that we serve (College A DI).

Another example of community engagement as indicated by College B is that “we host a couple of different larger bike races on our campus. One thing we do have in abundance up here, are woods and trails. So, we have several competitive Michigan Point Series bike races that we host on campus” (College B VP). It is a great opportunity to involve the community with outdoors activities, while at the same time allowing the college to garner name recognition and goodwill. Although “We generally don't generate a ton of money hosting these races, and usually it's relatively small. But, it gets people familiar with our campus; it gets them coming up here; it benefits the community in ways that they have to stay at their hotels” (College B VP). Not only does the college benefit from this initiative, so do the local businesses. It is another great way to ingratiate the community. Because “if we do go for an expansion, and a tax mileage rate, maybe we are more likely to get [it]. So “if we do those servicing those folks, they have kids, they have grandkids, they have all these types of things” (College B VP), could then lead to future students for the college.

College B also “works with community members to offer things that are fun and the community members want to see, and hopefully, that leads to some goodwill in the community” (College B AVP). Here again, the impetus for goodwill is to continue developing relationships that are both valuable for the college and the community. Another initiative was creating a business relationship with “Central Michigan Manufacturers Association. They live in our home, and we help support them with the administrative assistance. That's a symbiotic relationship” (College B AVP). Establishing this affiliation with Central Michigan Manufacturers Association
allowed the college to create synergy between both institutions that could be useful in opening up an extensive network of businesses for the college.

The leaders of College B identified shared governance as necessary for creating organizational change for entrepreneurship at the college. As has been already established, this study is about how leaders foster and support innovation and entrepreneurialism. Thus, the goal during data collection was to allow each participant to identify what approaches they felt were necessary for carrying out their respective entrepreneurial mission as the questions were open-ended. With that said, College B, which was in the early stages of innovative initiatives conveyed what type of leadership style they were using for organizational change. College A, unlike College B, has been at some level involved with entrepreneurialism for a considerable time with the Entrepreneurial Center and its academic entrepreneurship program offering. College A President noted, though, that the school is too in the early stages of entrepreneurial activities in the college’s operations. He indicated “we are in the early stages of really becoming what I would consider an entrepreneurial college” (College A President), which according to him is the third leg of the stool. Hence, College A at least during the interview did not indicate what type of leadership style they were employing.

With that said, College B President indicated that she thinks “it's really important for presidents to manage change, and that can be difficult, because you have your desire to be transparent, and it goes to the shared governance and the collaboration.” She went on to propose that “I would say being interdisciplinary, and our shared governance has always helped with that” (College B President). This leadership style is where “People find it more difficult to hide in silos, because of shared governance. I think that makes a difference” (College B President). An example of that is that “I am thinking in particular of one of our math faculty who has
recently been meeting with some of our English faculty, and sharing with me the awareness he has of why there [are] challenges in that area” (College B President). The process of reducing silos are henceforth an essential criterion for organizational change.

Organizational change is a difficult undertaking; however, College B President indicated that she has done a fair amount of change management. For example, when Michigan State affiliated with a small private law college, the Detroit College of Law back in 1995, shortly thereafter, I returned to Michigan State. I had been at Cooley Law School doing some administrative work, and I did a fair amount of change management to figure out how this public/private partnership was going to work. You had this big, complex bureaucratic organization in Michigan State, that was the gorilla, and then you had this little, long-standing, legacy-based law school out of the center of Detroit, over 100 years old, joining this big behemoth of an organization. It was a fascinating opportunity to work at doing something that really hadn't been done much before.

Her extensive experience in change management appeared to be instrumental in the leadership style adopted at the college. Along with administrators, and other key stakeholders, “We have students on our shared governance committees” (College B President). The adoption of shared governance as an institutional committee reflects how essential that leadership approach is to creating change as the president has shown.

Indeed, College B VP confirmed the shared governance practice at the school when he said without prompting that “We have been working on some shared governance, we have been working on some continuous quality improvement projects to allow people to lead a project on their own and try to get some experience that way. I think that's critical for folks to feel like they
belong to the organization” (College B VP). That sense of belonging appears to be the result of the school’s shared governance – the impetus for organizational change.

Research Question 2: What leadership strategies, structures, and use of resources, do community college leaders employ in their colleges to foster and support innovation and entrepreneurial activity, as presented by the leaders, and administrators of the colleges?

The themes identified in response to Research Question 2 is as follows:

- Community college leaders instituted entrepreneurial academic programming as a necessary structure for training future entrepreneurs and for producing other economic resources.
- Strategically, the leaders of the colleges used business development activities as a vital element in supporting and sustaining entrepreneurial activities.
- Internal and external collaboration enabled the college leaders to work with a diverse body of stakeholders for the creation of structures essential for entrepreneurial practices.
- The college leaders developed and implemented sustainable entrepreneurial structures that supported their entrepreneurial and innovation ecosystem.

Community college leaders instituted entrepreneurial academic programming as a necessary structure for training future entrepreneurs and for producing other economic resources. As academic programming is essential for providing training and the development of skills necessary for entrepreneurial practices, College A President revealed that “We do programming from fifth graders through college students in teaching entrepreneurship.” The way the program is structured is through “a youth entrepreneurial academy in the summer where people come and really have to have business ideas, and we help eighth, ninth, 10th, 11th graders
start their own businesses and bring them forward” (College A President). It is developing the entrepreneurial mindset as College A President indicated earlier. Included in the activities is a pitch contest. So, I would like to tell you, it's fully integrated into what we do. It's support[ed] from each side” (College A President). Also, “we have concurrent enrollment programming for about 40% of our total headcount. About 33% of our total credit count is high school Dual Credit Programming. Consequently, Iowa leads the nation in per capita credits for concurrent enrollment” (College A President). In essence, it created a captive audience of students that could remain in the pipeline of enrollees upon graduation from secondary school.

Another initiative by College A is that “We are going to start a plumbing program and our business division is going to run it. The kids get an opportunity to run a real business” (College A President). The driver of this enterprise is based on using an existing program “Our current technical startup is what we are going to begin this program with. We will hire a journeyman plumber to run it, and he can supervise the work that people don't want” (College A President). These types of technical skills combined with entrepreneurial training allows the student to complete the program with a more rounded knowledge base. Another program example as College A President noted from his earlier experience as “a K12 teacher when I started. And today, if you come here and take a 45-hour MIG welding class, 45 contact hours and you get your MIG welding certificate. You can go to a local employer, and you are going to make more than a first-year teacher” (College A President).

Another program identified by College B DI is “two new programs. One is an entrepreneurial mindset that I already talked about. I think student success, we can all get around that, and how we are defining entrepreneur, we are not defining entrepreneur as the Zuckerbergs or those type of people.” Also, the other is “called KEEN; it's k-e-e-n, Kern Entrepreneurial
Engineering Network. So Robert Kern is an engineer who was from around here, started a
generator business in Wisconsin, and he thought if engineers were more entrepreneurial, they
could create better designs for their companies, for their communities, and for society” (College
A DI). As well, they are “the three Cs in the engineering curriculum; then they will be more
entrepreneurial as they start working in building design” (College A DI). To integrate the
program at College B they “had one teacher, a biology teacher, go through that training. She is in
her first semester of revamping her class to incorporate those three Cs, so they are out studying
CAFOs, hog confinement facilities” (College A DI).

According to College President B, students are being hampered by “putting them into
developmental courses, we're labeling them as not college ready based on a test score in math
and English, in a test that they're not prepared for because we don't give them any time to, there's
no workshop ramp-up, none of that. Furthermore, “the test has no known predictive value? Is
that what we are doing” (College President B)? It raises some “fundamental questions. Why are
you doing that? And then you are setting up the entire sector by saying, "We are just filled with
all these people who aren't really college ready" (College B President). So “Then we wonder
why students say, "Well, I am only going to a community college." We create our own narrative.
It's a bad narrative, not based on any evidence, and then it drives how we make decisions”
College B President). To resolve this, College President decided to not “use the COMPASS or
the ACCUPLACER here” (College B President). College B also instituted a transfer program
with Central Michigan University (“CMU”) where “you can enroll, you can live in the CMU
residence hall. You can participate in CMU activities, but you take your classes at MID, at our
tuition rate and MID's tuition rate," and then transfer to CMU after graduation from MID. A cost
saving for the student according to the president.
Then there are other programs such as forestry types of programs, birdwatching; we've got ... We offered one recently called Who Gets Grandma's Pie Plate, which is kind of a strange name for sort of will planning type of thing. By who getting grandma's pie plate it's who gets it in the will, type of thing. So, we offer a variety of those types of classes” (College B VP). So “short-term training programs in a variety of different areas, but they are areas that are needed in the workforce and areas that we are always looking to cultivate” (College B AVP).

**Strategically, the leaders of the colleges used business development activities as a vital element in supporting and sustaining entrepreneurial activities.** Community colleges can be incubators of new business ventures as “we're kind of an emerging College in that regard, but very mature on the public service side of starting and supporting businesses or entrepreneurs’ centers also integrated with the Small Business Development Center for the state of Iowa, those function hand in hand here, which is unique” (College A President). What is more, “Our community expects us to contribute at a higher level for innovation and entrepreneurship. And we have always kind of adopted this ... you are better to grow your own and expand what you have and chase Google and ... we would love to have them but really what is your core business right now” (College President A).

Then “There [are] probably 20 people on our advisory committee, made up from business and political leaders from around the nine-county area” (College A President). The advisory committee finds “places where we can contribute and bring some of our best partners to the table. Economic developers, banks, business owners, we really want to become part of the fabric of the growth of this region” (College A President). As a member of the committee, College A President is in a unique position to help spur business development for the college. So “new
companies that come in, there is a flow of money from the federal government to the state. So we manage those contracts” (College A President) as part of the advisory committee responsibilities.

One of the processes for business ventures that has changed according to College A DI is writing “a business plan. Well today that model, that tool is fairly obsolete or is much different than what it used to look like back in 2000, where you would have a 15 to 30 to 100 and some page business plan where most of it talked about the technology and the marketing plan.” The way it is “like an existing business when startups are not an existing business, and they don't act like an existing business” (College A DI). The new method

is this customer discovery process to go out and conduct interviews with potential customers, with the first right customers to validate the need for the product, or to figure out what the product should look like, feel like, what functions it should have, and how it's truly going to benefit the end user, and if you truly go out and talk to the customers face to face as you're doing right now, you'll really better understand what they really want, because customers will lie to you (College A DI).

This new practice enables the prospective business startup investor to discover sooner of the viability of his/her idea. Thus, reducing startup failures.

College B President proposes that innovation “begins with shifting your lens, looking at things differently, and then it moves to, what's the job to be done for your customer? What are they actually paying you to do, and can you clearly define those objectives, and are you going after them.” The shifting of the lens then looks at “the value proposition that you are bringing to your clients or your customers? And that goes on into prototyping, and then it goes on to commercialization and scaling” (College B President).
Business development is looking at how one “can go to the restaurant, and I may find anyone, from the restaurant owner to the manufacturing leader to health care leader, to fill in the blank in the industry. Every one of them needs people” (College B AVP). The challenge though is that the workers “need skills. The problem is, there are not enough people to fill the jobs. Now they are left with getting them up to speed, to be productive enough in their organization. That's where we come into play. Now we have an opportunity to come in and help upscale them” (College B AVP). The college has a unique prospect of identifying what the local businesses need in terms of skills, and then find the programs that it could create or already have to provide the training for the industries.

**Internal and external collaboration enabled the college leaders to work with a diverse body of stakeholders for the creation of structures essential for entrepreneurial practices.** The practice of collaboration between internal and external stakeholders allows the college “to just really educate the community in terms of what entrepreneurship is because those principles will really help everyone be more successful” according to College A President. Because as College B President posits, “we are smarter collectively than we are individually, and I believe that, whether that's the red balloon project, or any of the other good work that's been done on the power of collaboration, and teams, and that too is” unique at the college (College B President). For example, “We have taken several groups over to Wisconsin to look at Gateway Community College, and some of the work that's being done over there” (College B President).

Another exciting approach as noted by College B President is “financial aid collaboration. And using shared purchasing power, the technology firms that will charge you by the site license, and if you could collaborate and make the most. There is a lot of work that could be done in that area” (College B President). These types of collaborations are common in the
industry, so this is a very innovative way to collaborate within a higher education institution.

Another option as pointed out by College B VP is partnering “with the school districts and working with them for space, for instructors, for general resources, computers and things of that nature, and collaborate with them to not only offer what we'd like to offer but help sell that to other folks as well” (College B VP).

Internal collaboration is “a whole other source. And it's driven in DNA; the president has done a nice job of really forcing that issue throughout the organization and trying to get us to knock down the silos and work more with one another” (College B AVP). College B saw the value of internal collaboration as an important aspect of its entrepreneurial approach. For example, “we will be up and running with a new program, then it becomes a matter of collaborating inside with the marketing department to push the message out. And then from there, we are up and running with a new program” (College B AVP).

Moreover, College B AVP noted that the college’s internal collaboration is “innumerable, they truly are. And they are a way that we are also looking very much in, in our side of the business, from an entrepreneurial side, in how we can create more programming using something that already exists.” Another example is that “we don't always have the expertise to create, dental hygiene assistant as an example” so they work with internal departments to create the program – an intentional collaboration process (College B AVP).

The college leaders developed and implemented sustainable entrepreneurial structures that supported their entrepreneurial and innovation ecosystem. To create a sustainable entrepreneurial ecosystem requires a “need to generate some revenue through our center just to support the good work they have done for 25 years, okay” (College A DI). College A has been doing entrepreneurial activities because they were able to go “out and [find] support
for the work they do from communities, counties, public entities, those kinds of things” (College A President). Another component is that “we are going to modify our curriculum to bring the components of entrepreneurship into all programs and our student success course” (College A President). To do this, “We assign those, and we have a five-person entrepreneurial staff. One of those is a Small Business Development Center employee” (College A President). In the process “we triage those requests from outside the private sector, and we give them to the person who has the skill set that best matches the business that they are going into” (College President A).

Here again, we see that having strong financial support is critical for a sustainable entrepreneurial environment. College A DI postulated that “I think community colleges have to look at ways to generate new incomes and our entrepreneurship centers, many of them get the initial funding, and the problem is, when you start working with entrepreneurs, they have no money” (College A DI). What the participant is suggesting is that the students “can't afford to pay big prices for classes you are gonna teach and give to them, so they are just getting started” (College A DI). So, the college would need to provide funding to the student for the startup, and “You hope the payout is down the road when they have had some successes, and they are cash flow positive, they are making a profit. You can come back on the philanthropic side and ask them for a charitable donation to the center” (College A DI).

College B takes a different strategic and structural approach to create sustainability by developing “relationships with Farris State University, and with CMU [Central Michigan University], our nursing program has relationships with, I think we're up to eight different schools for the ADN, associate degree in nursing, to BSN, bachelor’s degree in nursing” (College B President). The purpose is to create “a defined pathway in which those schools will
take many more of our credits than they would otherwise take up to 72 credits (College B President).

Another example from College B is “Bellevue, B-E-L-E-V-U-E. They have a presence on our campus, as well, in Mount Pleasant. They are in Kansas, and they are a very entrepreneurial place” (College B President). According to the president, “They said, "Oh, we have to figure out a different delivery model. That led them down a path of real cohort, online instruction. They have partnered strongly with a lot of the community colleges, but more strongly, I would say, than a lot of the public universities have” (College B President).

Without students, it is near impossible for a community college to be entrepreneurial, or exist for that matter, so we “have to reach out to those students that are in need of service. So, that is one area that we are working on. I think that's fairly entrepreneurial and as of yet, it hasn't been picked up by anybody else” (College B VP). Finding a new base of students requires that we “look at things like reports that show what the most in-demand hired skills and soft skills [are]. And then, we will look through that and highlight those areas where we are engaged or can be engaged” (College B AVP). So, finding the students are essential but the college would need to give the student a reason for choosing its college.

**Summary**

Based on this study, it is reasonable to suggest that entrepreneurialism in community colleges has value both for the institution and its students. This field study showed evidence that entrepreneurial education is a viable option for community colleges. The recurring theme is that institutions of higher learning face crises due to the dwindling pool of available students, non-tuition fiscal support, and other headwinds due to unprecedented changes in higher learning. Entrepreneurship both programmatic and operational, could be the savior for some colleges. Most
community college institutions do not have the sizeable endowments such as four-year colleges and universities, so they may need to use innovative approaches for long-term sustainability.

What we can all learn from this is that leadership and interested academicians cannot just rely on old ways of operating an educational institution. New thinking is in order. It is evident that real challenges face the community colleges in this study. Moreover, other colleges may recognize the importance of using entrepreneurialism as a way out of the enrollment doldrums these types of smaller institutions are contending with during these times of significant headwinds.

Studies show that “America’s innovative and entrepreneurial culture is often regarded as one of this country’s greatest national advantages in an increasingly competitive world” (U.S. Department of Commerce, 2013, p. 14). Some in higher education may view this business-style approach as something not suited for community college environments, but “This innovation infrastructure includes a large number of universities and colleges, research institutions, laboratories, and startup companies all across the United States - from major cities to rural areas” (U.S. Department of Commerce, 2013, p. 14). Indeed, community colleges can benefit from innovation and entrepreneurial practices as has been identified by college leaders at the two colleges studied in this study. These colleges leaders were able to show why these practices are essential for continued growth and sustainability. Finally, the study was able to demonstrate real upsides for its entrepreneurial activities.
Chapter V: Discussion of the Findings

Review of the Problem of Practice

As the findings of this study were able to reveal qualitatively, community college leaders are faced with a multitude of complex challenges. These include fiscal challenges declining student populations, changing academic needs, economic pressures, and other diminishing resources. Yet, with that backdrop, “Now more than ever we have to fulfill our promise to provide a viable path for young people from college to the workforce that equips them with the intellectual, emotional and experiential preparation necessary to face, tackle and solve complex social problems” (Setser & Morris, 2015, p. 3). Community colleges can and should play a role in fulfilling those needs. In solving this complex set of problems, this study seeks to show that these academic institutions will need to reengineer their business model and to do so requires college leaders to foster and support innovation and entrepreneurialism.

Consequently, this study seeks to discover and provide approaches that college leaders can use to support and foster an innovative and entrepreneurial ecosystem. Studies have shown that “over the last decade, more universities, community colleges, Historically Black Colleges and Universities (HCBU), and regional state colleges have embraced innovation and entrepreneurship as critical to their mission and role in their communities” (U.S. Department of Commerce, 2013, p. 9). Entrepreneurialism is not a novel concept for higher education institutions. Focused on innovation in the college environment, this study was able to identify a core set of strategic and tactical practices that could be recommended for community college leaders to commit to entrepreneurialism at their institutions fully. The objective of the findings is to propose resolutions for community college presidents regarding the problem of practice by supporting and fostering innovation and entrepreneurship.
Review of the Methodology

This qualitative multiple case study explored how the leaders of two community colleges fostered and supported entrepreneurial and innovative activities at their respective schools. Accordingly, this study is guided by the following two research questions.

1. How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them?
2. What leadership strategies, structures, and use of resources, do community college leaders employ in their colleges to foster and support innovation and entrepreneurial activity, as presented by the leaders, administrators, and faculty of the colleges?

For this study, the researcher carefully chose two community colleges for a multiple case study. The reasons these two colleges were chosen are due to their recognition by the National Association for Community Colleges, its commitment to innovation as part of its core mission, and the work that they are doing within its community to support and foster entrepreneurialism.

The research methodology comprised of interviews with college presidents, and administrators. It also included a review of materials provided by participants, and through retrieval from the college’s respective websites. The participants were asked the same questions – one set for college presidents, and one set for administrators. They were open-ended questions focused on how community college leaders foster and support entrepreneurialism and innovation at their institutions. The goal for “this type of case study is used to describe an intervention or phenomenon and the real-life context in which it occurred (Yin, 2003). In this context, the researcher was able to discover from the study how the phenomenon was able to be put into practice.
Upon completion of the data collection, all audiotaped interviews were transcribed using a transcription service. Also, a variety of materials were collected from individuals at the colleges where the studies were conducted, and through their websites. As shown in chapter IV, each research question was linked with a theme necessary for connection of the study’s findings.

With that said, this chapter comprises the subsequent sections: the discussion of major findings, the theoretical framework on how it relates to the findings, conclusion, the significance of the study, its limitations, and possible recommendations for future research.

**Discussion of Major Findings**

Upon completion of reviewing the data collected from individual interviews with college presidents and administrators, a review of a variety of documents noted previously, the researcher discovered four key findings that were grounded from the themes described in chapter IV. The four significant takeaways are:

1. College leaders were instrumental in supporting and fostering entrepreneurialism as an institutional prerogative.

2. College leaders believed that the long-term sustainability of community colleges would require innovation and entrepreneurial practices as part of the school’s mission.

3. According to the college leaders, shared governance and collaboration are the essential leadership practice necessary for institutional change and the pursuit and governance of entrepreneurial activities.

4. All college leaders agreed that community involvement is indispensable for developing and sustaining entrepreneurialism - it is the catalyst for a thriving innovation ecosystem.
College leaders were instrumental in supporting and fostering entrepreneurialism as an institutional prerogative. One community college president from the study postulated that “I don't think we'll be around in another hundred years if we don't really reinvent ourselves and continue to change and mold to the needs of the community and really figure out how we can play a broader role than just being a regional rural community college” (College A President). Mainly, it is going to be difficult moving forward for community colleges to have a long-term future without supporting and fostering entrepreneurship at its institutions. It is particularly vital for community colleges to be innovative where there are no free tuition policies in place. Although one can conclude that even those colleges where the government has mandated for free tuition for students, entrepreneurial practices are still essential. One key reason these free-tuition institutions need to remain vigilant is because student populations are declining. Therefore, there will be competition for the remaining learners.

The overarching view of the participants from all community college leaders is that entrepreneurialism is a vital practice for their institutions. They view it as the way forward for sustainability. For example, College A has been practicing two of the three legs of the stool as portrayed by the president for over 20 years – academic entrepreneurial programs, and the operation of an Entrepreneurial Center. Moreover, College A President indicated that they are in the infancy stage of instituting entrepreneurship as part of its operations so that the college can become totally entrepreneurial. Also, College B is on its way to becoming entrepreneurial academically, and as well expanding its Workforce Development department, alongside Michigan’s Small Business Development Center operations to foster and support innovation.

College A President went on to suggest that, “the principles of entrepreneurship, it is not all about starting businesses, it is about being successful and creating a mindset so that you can
persist.” From College A President’s viewpoint, having an entrepreneurial mindset is what changes one’s perspective on how innovation is pursued. Shepherd and Patzelt (2018) proposed these questions as a way to probe the mindset of entrepreneurs. The authors asked, “Why are some individuals and managers able to identify and successfully act upon opportunities in uncertain environments while others are unable to do so” (Shepherd and Patzelt, 2018, p. 2). The writers postulated that the “important answer to the above question emerges from the individuals’ entrepreneurial mindset” (Shepherd and Patzelt, 2018, p. 2). So, what College A President and the authors are suggesting is having an entrepreneurial mindset continually places the person in a state of mind that is always acting innovatively. The individual will not only do so in a working environment but as well as in their personal life. So, the key is for leaders to have that type of mindset, which is the cognitive aspect of entrepreneurialism.

To train learners on developing that type of mindset, College A DI indicated that its college is “offering to our student success program an entrepreneurial mindset curriculum.” So, it is the prerogative of the institution to develop its students’ cognitive disposition of entrepreneurialism. Mostly, the college is trying to develop a cadre of trained entrepreneurial thinkers. One possible net result of the work the college is doing is what it could do for the local economy. For example, if one is training plumbers, while at the same time including in the program an “entrepreneurial mindset curriculum,” may increase the possibility that the student opens his/her shop that leads to hiring new employees. Another benefit for the college is the former student becoming a donor to the school. It is a cycle that could pay dividends to the college — both in terms of funding and exposure, which is helpful for the sustainability of the institution.
Alternatively, College B’s fostering and supporting institutional innovation is at a stage where the focus is on change management. For the college, it is about changing a culture that was based on the traditional ways of higher education. Although the college is involved in a variety of entrepreneurial initiatives, and the key administrators are on board with the mission of entrepreneurialism, they in the process of expanding buy-in with other individuals at the school. It is not unusual for this type of undertaking of change management to be part of instituting new initiatives, such as the intentionality of creating an entrepreneurial ecosystem. Moreover, it is typical for employees “to be cautious and protective of what they have acquired, and entrepreneurship takes risks” (College B President). The president went on suggest that “there is a risk to take whatever action, but there is a risk not to take action, too” (College B President).

For change management, and by extension developing what College A’s president coined, “an entrepreneurs’ mindset,” is by providing presidential leadership of confidence to the institution’s workers.

Also, change management involves motivating individuals to get out of their “comfort zones” – to think boldly. To look at entrepreneurship as something that benefits the worker and as well, the greater community. The results of the study were able to show how developing an entrepreneurial mindset – the cognitive - is associated with change management as part of the defining elements of making entrepreneurialism an institutional prerogative. It is about realigning the institution’s culture from a space of traditional academic processes to an environment of innovation. However, the leaders of the college will then need to take the new practice or ongoing practice of innovation from the abstract to practice.

College leaders believed that the long-term sustainability of community colleges would require innovation and entrepreneurial practices as part of the school’s mission.
College A and B provided a variety of initiatives that are currently in-practice or are in the process of becoming active enterprises at their institutions. For example, some of these practices are such things as entrepreneurial academic curriculums, entrepreneurial and business centers, community outreach and business development, miscellaneous programs, sponsoring fun on-campus activities, participation in business groups, business startups, an assortment of fundraising activities, and more. These entrepreneurial activities have become the staple for both colleges and have proven to either provide direct or indirect revenue generation. Caution should be considered that some activities may not have contributed to increasing revenue, and may at times be an expense against operations, which is not uncommon for some entrepreneurial functions to hurt profits. However, most initiatives according to the leaders from both colleges indicated that the overall benefits are a net positive to their institution. The following examples present a closer look at each entrepreneurial/innovation activity as described by the college leaders.

Entrepreneurial academic programming: College A has a unique program that involves students from fifth grade through college through its “youth entrepreneurial Academy” that is done during the summer months. The students are instructed to bring their business plans for their startup businesses. The college will then show them how to put their plans into action, which includes a “pitch contest” as revealed by College A President. Also, College A is working on developing a plumbing program that would be part of the offerings in the business division. According to the president, the students would get the opportunity to “run a real [plumbing] business.” The college is also doing a similar program in construction. College A also has two programs – one is called “Entrepreneurial Mindset,” and the other “Kern Entrepreneurial Engineering Network”, according to College A’s director of the Entrepreneurial Center.
College B has some fun/hobby types of programs, such as forestry, birdwatching, “Who Gets Grandma’s Pie Plate,” which according to College B’s vice president is a will planning training. College B is also in the early stages of creating “six new short-term training programs” in the workforce area of emphasis. These programs and others form the building blocks that College B is developing to not only attract a broader group of learners, but also to expand the college’s community reach that could be useful later when the college is fundraising. The college also has dual-enrollment relationships with local high schools, and with Central Michigan University. The outline of the universities arrangement is that if students are denied academic entry into the University, they can attend the community college while residing at the university. If the student’s GPA remains at 2.0 or higher, they will be reconsidered for acceptance into the university. This “outside the box” thinking is an example of the college’s entrepreneurial practices.

College A and B both have either an entrepreneurial center or small business development center that are springboards for generating new ideas while working with their respective academic wing of the college. College A has an entrepreneurial center that became part of its school over 20 years ago with support and funding from a venture capitalist. Also, College A has an arts performance center and a leadership series that has consistently maintained an annual net gain. According to College B’s website, the school was able to work with its Small Business Development Center that “helped clients access over $9 million in capital in 2017.” These types of commercial relationships allow the colleges to collaborate with business entities in their community – partnering that helps connect students to their local business community.

The colleges entrepreneurial and business centers were able to help the schools to build a vast network of local businesses working with the college to spearhead a variety of
entrepreneurial activities at the college, and as well, with its community. Both colleges are in rural areas, so these centers created a robust set of relationships that were beneficial in a variety of ways for both college and business. According to the leaders of both colleges, these centers worked to help foster an environment of innovation at their institutions.

According to the college leaders, shared governance and collaboration are the essential leadership practice necessary for institutional change and the pursuit and governance of entrepreneurial activities. College B is going through a transformational change process - from administering education through a traditional methodology to a mix of traditional and entrepreneurialism. By leading this change initiative, the president of the college adopted a shared governance leadership approach that is beginning to pay dividends. To bolster the school’s leadership method, they created a shared governance committee that included administration, staff, faculty, and students. In doing so, the president signaled that it was an essential characteristic of her leadership approach to governing. Thus, the shared governance created an atmosphere of leading entrepreneurially. For example, shared governance can create an environment of competing ideas that if well managed could create a variety of innovative ideas, particularly if it is done for invigorating entrepreneurialism. Moreover, this leadership model could stimulate “Competing values, disparate perspectives, and contextual directives often find common ground in the educational mission” (Crellin, 2010, p. 77). Entrepreneurialism is partly about discovering new ideas or ventures, which could arise from “competing values, and disparate perspectives.”

Also, shared governance is also space where collaboration can take hold. College A and B saw collaboration as an integral part of entrepreneurialism. Based on the responses of all leaders from the colleges, they agree that collaboration allows them to work with internal and
external stakeholders to build a thriving entrepreneurial ecosystem. College A President postulated that “I make a big point when I talk with faculty and staff, and I did from my very first introduction here, in saying that we are smarter collectively than we are individual.” Fundamentally, entrepreneurialism mostly exists through collaboration, particularly as it relates to a higher education institution. External collaboration could be for financial aid, purchasing, technology as the college president suggested. Also, working with businesses, governments, community entities, and the like are other forms of external collaboration that are useful for entrepreneurship. College B AVP noted that internal collaboration has helped to remove some of the silos that have prevented the development of new ideas that may affect multiple departments.

All college leaders agreed that community involvement is indispensable for developing and sustaining entrepreneurialism – it is the catalyst for a thriving innovation ecosystem. For a community college, especially in a rural area, which is where many of these schools are located, community involvement is a crucial process for a developing and sustainable entrepreneurial apparatus. College A President sits on a business advisory committee, which includes “business and political leaders” that helped bring “economic developers, banks, and business owners” together. The other community involvement is working with businesses to find out the type of skills and training that they need so that the respective college could create academic programming that fills those needs. Additionally, the college can also provide intellectual knowledge to help businesses expand their footprint in the community that could lead to organizational growth.

Finally, robust community engagement helps when the college reaches out to businesses when fundraising for its entrepreneurial projects. One could agree that it would be difficult to convince a business owner to invest in the college’s ventures if there has been limited outreach
before the request is made. Also, it would be difficult to get residents to agree to pay additional
taxes or to support funding new entrepreneurial activities if the community has never heard from
the college. Indeed, community collaboration and involvement are the catalysts for a successful
and enduring entrepreneurial ecosystem.

**Clark’s Theoretical Framework for Discussion of Findings**

As indicated in Chapter I of this paper, Clark’s (1998) theoretical framework is based on
five principles. The tenets are a strengthened managerial core; an enhanced developmental
periphery; a diversified funding base; a stimulated academic heartland; and an integrated
entrepreneurial culture (Clark, 1998). The researcher chose this theoretical framework because of
its alignment with the research design. For perspective, Clark (1998) posits that “They sense that
in fast-moving times the prudent course of action is to be out in front, shaping the impact of
demands made upon them, steering instead of drifting” (p. 5). The “They” represents the college
or university where the rapid change in higher education as realized in this study suggest a need
for change from traditional to entrepreneurship education as a way forward to avoid “drifting” as

A “strengthened managerial core” It is a way to “operationally reconcile new managerial
values with traditional academic ones” (Clark, 1998, p. 6). From the findings, the study was able
to show that shared governance and collaboration established a decision-making process that was
designed to create change. Shared governance was a way for leadership to create change in a
complex environment of moving parts. The collaboration was for management to continue
embedding change to some level of entrepreneurial relevancy. Clark (1998) is proposing that to
create change, management needs to support its core interest so that its stakeholder can begin to
believe in the institution’s vision. Without management support or organizational leadership –
change may drift into an undesired result. Worst yet, workers may be less likely to participate in a meaningful way of future endeavors.

Also, leadership would “need to become quicker, more flexible [entrepreneurial], and especially more focused in reactions to expanding and changing demands” (Clark, 1998). Flexibility is an important element of entrepreneurship from a leadership perspective. Inflexible management may lack the capacity to change. So, Clark (1998) portends that being “nimble” as one of the participants suggested at his college, is a criterion for entrepreneurs. The ability to react quickly to shifting demands is a prerequisite for developing new ideas and ventures. Because a change plan may not turn out the way it was initially proposed. Thus, remaining flexible and dynamic is essential for developing the managerial core.

The other tenets - enhanced developmental periphery, which is about “professionalized outreach offices that work on knowledge transfer, industrial contact, intellectual property development, continuing education, fundraising, and even alumni affairs” (Clark, 1998). The results of the findings showed how the importance of community development is the catalyst for good entrepreneurial practices. The study revealed how developing contacts from the business community, the sharing of knowledge between colleges and industries, creating programs or certificate training, and fundraising reflect enhanced developmental periphery (Clark, 1998). As was previously stated, the community colleges in this study became incubators of new startups, which could lead to alumni returning as donors to the institution, and as well as other organizational exposures.

The other aspect of this tenet is to develop the periphery through serving the community by building relationships with local governments and businesses. It is an essential element of
entrepreneurship because it forms the basis for inspiring new ideas and ventures that may originate from collaborating with a variety of entities. Another is the “centers [that] mediate between departments and the outside world, such as the Entrepreneurial Center of College A, and the Small Business Developmental Center at College B. While building relationships with external industries, the centers facilitate the needs of the college with that of the businesses.

The next principle is “The Diversified Funding Base.” The research showed that “Widening the financial base becomes essential. Since virtually everywhere, mainline institutional support from the government, as a share of the total budget, is on the wane” (Clark, 1998). Both colleges in the study revealed how the decreasing funding from governments had been one of the vital reasons for considering entrepreneurial practices, solely because it could no longer depend on basically two ways of revenue generation. One is tuition based, and the other is from some local and state government funding. The participants in the study all say that operating without diversifying its funding base is not an option.

Also, some of the participants mentioned that even grants are becoming limited in their availability or reduced amounts. Clark (1998) suggested “third-stream income sources that stretch from industrial firms, local governments, and philanthropic foundations, to royalty income” as other ways of for raising funds beyond the traditional means. These options proposed by Clark (1998) were all discovered in the study based on the responses from the participants. Diverse funding is thus the most likely strategy long-term sustainability. College leaders can not disregard it as a way to foster and support entrepreneurship.

Next, is “The Stimulated Academic Heartland”. This tenet is based on the traditional way of education, such as “sites of research and particularly of teaching, the basic units, and their more encompassing multidepartment faculties” (Clark, 1998). which is part of the
entrepreneurial workplace. Entrepreneurism in education is not suggestive of removing the traditional learning mechanisms, but more as the foundation of the college. However, it would require stimulating the methodologies used to administer education. Because if “units oppose or ignore would-be innovations, the life of the institution proceeds largely as before,” which is contradictory to the stated goal of an entrepreneurial institution. What Clark (1998) is suggesting is that stimulating the academic wing of the college would require faculty and the respective departments become like entrepreneurial components. It is blending the values of traditional education and innovation. Again, Clark (1998) theorized that the result would be a “modified belief system.”

The final principle seeks to integrate the entrepreneurial culture that accepts change as a valuable way to alter established culture. Clark (1998) suggests that “strong cultures are rooted in strong practices,” therefore, creating change, particularly as it relates to entrepreneurial education is a complex and challenging undertaking. The goal of this principle is to create an environment by which all the first four tenets can become operational (Clark, 1998). It is a way of integrating the institutions values with the new initiative so that the change can become an active component of college’s ideals.

These five principles form the theoretical framework of the research that supports the findings of this study. Clark’s (1998) framework advocates “that some core tasks and some deep structures are altered to the point where the long-term course of the organization is changed.” Clearly, from the findings, one can conclude that the institutions in this study were either in the process, or have already been altered, to the point where entrepreneurs can transition into a new way of operating.
Discussion of Findings in Relation to the Literature Review

Chapter II presented the literature review to give context as it relates to its contribution to an understanding of the research problem. Seven components contributed to the contextual value of this study. The seven are The purpose of community colleges, current community college challenges and successes, the need for innovation and entrepreneurial activity at community colleges, serving the community, increased student enrollment, examples of innovation through entrepreneurial activity at community colleges, and fostering innovation – a distributed leadership approach. The following discussion will address those seven components on how the findings of chapter IV are related to the literature review found in chapter II.

The purpose of community colleges. As suggested by the participants of this study, community colleges help local businesses thrive, which helps the community continue to grow economically. The engine of that growth is mostly due to the entrepreneurs in the community. These entrepreneurs hire residents from the community that studied a local academic institution. This discussion though focuses on community colleges and how the purposes of these institutions can play a role in developing entrepreneurs. These schools provide three critical roles for their community. First, they help students who for one reason or another decided to gain a degree or certification to better themselves. Second, for those “who initially attend four-year colleges but fail to persist, [found that] community colleges offer a second chance” for these students to regain their footing (Kalogrides & Grodsky, 2011, p. 855). The third is the economic benefit these institutions provide to the community.

Ramson (2014) suggested that the workplace will be entirely different than it was five years ago. One can agree that Ramson’s (2014) assertion five years ago was accurate. One of the participants at College A told a story of how long it took him to find a plumber who could fix a
simple plumbing problem he had at his home. That experience served as an impetus for the development of a plumber training program which includes entrepreneurialism studies that could potentially spur new plumbing business in the area.

For community colleges to continue fulfilling the needs of the community, while facing a variety of adverse challenges, leaders in these institutions as proposed in the findings of this study would need to practice entrepreneurialism. The Department of Commerce (2015) study proposed, “We all recognize that our economy is changing rapidly. The forces of globalization are creating more opportunity and less certainty—punishing stasis while rewarding creativity, flexibility, and agility.” The study makes it clear that inertia in any economic driver is not sustainable. Community colleges play an essential part in their community and are needed as participants in training workers to enter the workforce. Not only to become an employee, but to also create jobs as an entrepreneur.

**Current community college challenges and successes.** The findings suggest that the challenges facing community colleges are partly the reasons why the institutions in the study determined that innovation and entrepreneurship are essential for the long-term sustainability of their institutions. Moreover, although those same colleges from the study were experiencing some successes, they did not believe that keeping the status quo is an enduring position to be in without making some structural changes.

The structural changes as the findings revealed were primarily based on developing and reengineering new practices of entrepreneurialism and innovation embed into the culture of the school. The decisions of the leaders at these colleges were partly due to some level of dysphoria – unhappiness with the current state of their respective institutions. The researcher posits that entrepreneurship in some ways is driven by dysphoria with the present state of one’s institution.
Which is to say, entrepreneurialism is being in a constant state of innovational activities – never pleased with what is, but continuous movement of the current condition or from a place of motionlessness. The leaders of the colleges were able to “leverage existing, new, proven or unproven methods or tools to improve practice, solve persistent problems or create a completely new offering, service, solution, product or idea” by supporting and fostering entrepreneurialism (Department of Commerce, 2015, p. 7). These practices, as were discovered in the findings are beginning to shift the challenges into successes.

The need for innovation and entrepreneurial activity at community colleges. To continually turn the challenges into successes, there must be a commitment to being in a persistent state of innovation and entrepreneurship. Leaders, as one of the college president’s stated, should look at entrepreneurialism as a mindset rather than an abstract practice. Having that mindset enables one to see the need for innovation and entrepreneurship. Besides, the college presidents in the study faced with diminishing student enrollment, reduced government funding, and the availability of grants, determined that the need for innovation is vital for its continued existence. To move from need to action, increasingly, “Workforce development education is centered on specialized training programs that are determined by and responsive to the fluid labor demands of regionally located business and industry” (Mars and Ginter, 2012, p. 76). Those specialized programs as identified in the findings, such as plumbing, construction, electrician, business creation through entrepreneurial studies, and others, along with hobby/skill development, help meet the demands of the labor market, as well as creating a work-life balance. Theses practices allow the community colleges to serve their communities

Serving the community. Today there are numerous workforce able individuals that are underemployed or unemployed due to the shifting demands of the labor force. Community
colleges can play an integral role in closing that gap. The other benefit for these colleges serving its community is the direct result of providing the types of training and education to its citizenry. According to Myran and Ivery (2013), “Many constituencies of the urban community college are struggling to get that first good job or to recover from an economic reversal, and thus to gain a foothold on economic security for themselves and their families” (p. 46). Therefore, the colleges in the study are serving their community through entrepreneurial training so that their constituents are not only contributing to the needs of business but are also becoming entrepreneurs as well. These new types of entrepreneurial scholastic offerings in concert with businesses and students raise the prospects of increasing enrollment.

**Increased student enrollment.** Increasing student enrollment is an essential aspect for community colleges to remain a viable education provider. To that end, literature along with the findings of this study, along with materials obtained from the college’s website, propose that guided pathways, online learning, dual-enrollment, collaborative financial aid, entrepreneurial courses, and practical training, business startups, and other innovative approaches are helping to increase student enrollment. For example, studies have shown that guided pathways have been successful in increasing enrollment.

Bailey et al. (2015) articulated that community colleges need to find ways to change how education is delivered to the student population it serves. The president for College B went further to suggest that placement tests are not a determining factor in predicting if a student succeeds or fail in their studies. According to the president, a review was done to test the reliability of placement tests and found no evidence that they made any difference in how the students performed after the assessments. Also, College A infused into their academic programs entrepreneurial learning, along with creating business ventures that are used to inspire interest in
its community college. So, for a college to grow its enrollment, innovation and entrepreneurship is an important activity for the institution.

**Examples of innovation through entrepreneurial activity at community colleges.** The results of the findings were able to expand the examples of innovation described in the literature review of this research project. Macomb Community College working with manufacturers concluded that they needed to expand “its automotive programs.” By “introducing students to new and emerging areas, such as the application of information technology skills in production methods” (Woods, 2015, p. 34). The colleges in this study are also working with manufacturing organizations through their entrepreneurial and small business centers to develop new training and skills programs for their students.

Another example of entrepreneurial activities suggests “community colleges and businesses have existed for years under the entrepreneurial banner of contract training, whereby companies hire community colleges to train their employees” (Woods, 2015, p. 35). The community colleges in this study are also involved with contract training, such as dental hygienist training. These examples are a small sample set of innovation activities that are helping these colleges remain relevant within their communities. Fostering and supporting entrepreneurship requires committed leadership from college leaders.

**Fostering innovation – A distributed leadership approach.** As was discovered in this study in chapter IV, shared governance was a fundamental approach to leadership that the college president employed to create change. Although, “there are critical differences, the theory of distributed leadership shares much in common with the organization of shared governance in post-secondary education” (Burke, 2010, p. 52). For example, Burke (2010) postulated that shared governance is about leading as “servants and motivators,” while distributed leadership is
about devolving power. Essentially, “the principles of shared governance in theory help to clarify the implied key values of distributed leadership” (Burke, 2010, p. 52).

The goal of this style of leadership is to change an institution from a traditional methodology of providing education to an environment where entrepreneurial activities form the new ecosystem of the institution. It is an effective way to foster and support entrepreneurship and innovation activities. One of the core components of distributed leadership is shared responsibility. Shared governance helps to create buy-in from stakeholders, although conflicts may arise due to the nature of this form of leadership, just as is the case would be with distributed leadership. So, it would require leaders who adopt either approach to be skilled in the nuances of this leadership style.

Implications for Practice

The results of this study provide several suggestions that could be considered for community colleges to become entrepreneurial. They are organizational change planning, entrepreneurial academic programming, business development, and community service. The following will elaborate on these entrepreneurial activities that college leaders could foster and support at their college.

Becoming an entrepreneurial college in any form, especially for an institution that mostly operates using traditional methodologies, requires organizational change. To do so requires a plan that addresses how to go about creating change before embarking on a process of entrepreneurialism and innovation. The study suggests distributed leadership or shared governance to create buy-in from key stakeholders. College B, for example, created a shared governance committee. The committee chaired by the president, and included students, was designed to be the body that initiates the change efforts within the college. Although the
president of the college has sometimes experienced conflicts in the committee, she remains committed to its value for an organizational change. Thus far, the committee has been instrumental in helping spearhead the school’s entrepreneurial activities.

Entrepreneurial academic programming provides the bedrock of entrepreneurial activities at a community college as they are infused into the academic wing of the school while providing a link with businesses. The colleges in the study suggested courses in entrepreneurial mindset programs such as plumbing that include entrepreneurial studies, the actual development of business startups, concurrent enrollment with high schools, and the creation of an entrepreneurial academy which allows students to do work-study programs at the college. Additionally, working with the “Kern Entrepreneurial Engineering Network,” training can be done with faculty on how to infuse entrepreneurial practices in their courses, discontinuing placement tests, and creating short-term training programs allowed the students to begin new employment or obtain higher positions quicker. Some of these programs may require a complete restructuring of the college’s current course offerings, but the net result would be positive.

Business development is essential for four principal reasons. The first reason is that it forms the catalyst for defining what programs/skills businesses need to prepare students for the jobs that are needed now and in the future. The second reason is to be able to collaborate on a plethora of opportunities beneficial for both college and business. An example of that is collaborating on startup creations and work-study programs. The third is vital for fundraising – it’s an opportunity for reciprocal relationships. For example, one college created a gala to present their annual Entrepreneur of the Year Award, while using the event for fundraising from a local business owner. Also, the same college names an “Entrepreneur of the Month.” The fourth is
developing businesses internally with interested entrepreneurs, such as plumbing businesses that include training to become a plumber, while creating a startup.

Community service is paramount for a community college to be viewed as a positive institution in its public environment. It is also a necessary way to create a buzz for students to become interested in attending its schools, there are many options for post-secondary individuals. The community service could involve sponsoring sporting and other events that could draw crowds to the college’s campus. Both colleges in the study conducted community-based events, such as golf games, lifelong learning classes, artistic welding, will planning, and other activities.

Also, sitting or participating on business advisory boards that could be used to establish relationships in the business community, which could also help discover what state and federal governments are doing locally to spur economic growth. One president in the study revealed his involvement in an advisory committee that is comprised of businesses and politicians that include the “nine County area” in the state. The group includes economic developers, banks, and business owners. Other operations could include business development centers that provide the connectivity for developing innovations in coordination with a business interest in the community. These and other entrepreneurial activities are essential for long-term sustainability for community colleges as the student population continues to decrease, along with reduced sources from government entities.

Limitations

The limitations on entrepreneurship and innovation at community colleges are considered in this study. First, only two colleges were used in this study. Out of the seven community colleges identified as institutions actively involved in entrepreneurial and innovation activities by the National Association of Community College Entrepreneurship, only two responded and
agreed to participate in the study. This result could be due to the timing of the request and other unknown reasons. However, the colleges that did not respond could be approached again in the future for other studies related to this subject.

The colleges were in rural areas. Although these colleges represent the location of a large number of community colleges, other ideas, and other information could create a more balanced set of data. Furthermore, colleges may have to invest more time and resources to reach a larger area, such as over 150 square miles beyond the school’s border. Moreover, being located in a rural area increases the difficulty of enrollment growth and access to critical resources.

Only top leaders and administrators were part of the data collection. It would have been better to interview other staff and faculty members that are involved in the entrepreneurship activities, but time limitations may have impacted the full intended snowballing effect. Also, the other members of the colleges could have provided their impressions of the workability and decision by leadership to foster and support entrepreneurial activities.

Finally, according to “Bernard, Pittz, and Vanevenhoven (2018), “A gap exists between studies of entrepreneurship education and research focused on four-year universities and those focused on community colleges.” This gap is reflected in the available literature for this study. As more information is gathered on the topic, additional discovery for and or against studies in entrepreneurship could help expand the understanding of this subject.

**Future Studies**

Future studies could be conducted to look at the return of investment on community colleges that implemented entrepreneurial activities. This study did not look at the implications of the institution’s financial resources and net gain or loss from their commitment to practicing entrepreneurship. Other studies could look at the complexities of embarking on transforming a
community college into a complete entrepreneurial institution. Also, future studies could look at what happens when a community college completely transforms from traditional to entrepreneurial education.

Conclusion

The fostering and supporting of entrepreneurship and innovation at the two colleges from this study identified eight themes from the findings of the research include the following:

Research Question I: How do community college leaders foster and support innovation through entrepreneurial activity at their colleges and to what end, as perceived by them?

- College leaders find fostering and supporting entrepreneurial activities as very important to institutional sustainability
- The community college leaders specified that reduced grants and government funding are forcing entrepreneurial activities
- Entrepreneurial activities are instrumental in serving its community as were revealed by the community college leaders
- The leaders of College B indicated that shared governance is vital for an organizational change

Research Question II: What leadership strategies, structures, and use of resources, do community college leaders employ in their colleges to foster and support innovation and entrepreneurial activity, as presented by the leaders, administrators, and faculty of the colleges?

- Community college leaders proposed entrepreneurial academic programming as a vital criterion for training future entrepreneurs
• All community college leaders believed that business development is essential for supporting and sustaining entrepreneurial activities

• Internal and external collaboration noted by college leaders as fundamental aspects for allowing entrepreneurialism to thrive

• The college leaders agreed that developing and implementing sustainable entrepreneurial structures and strategies underpins the entrepreneurial and innovation ecosystem

These themes are consistent with Clark’s (1998) theoretical framework as the college’s leaders in this study were able to support and foster entrepreneurship at their schools fully. The colleges were able to put in place a variety of activities, such as entrepreneurial academic programming, developing business ventures internally with students and through its centers, serving its community through entrepreneurial activities, along with other in-house non-academic entities, and other noteworthy innovations. The study was able to show positive results from the entrepreneurial activities that were able to help the colleges remake their institutions into an innovative academic environment.

The colleges were able to accomplish entrepreneurialism by its leaders supporting and fostering innovation as a way of creating new opportunities for its institution. In doing so, they were able to continue to expand and grow even while experiencing a reduction in tuition and government support.
References


Flynn, W. J., & Vreedevoogd, J. (2010). The future of learning: 12 views on emerging trends in higher education: On behalf of our campuses, we need to seek out change; to be more flexible, more thoughtful, and more open to student decision making; and to build outcomes measurement feedback into integrated planning. Planning for Higher Education, 38, 5+.


Appendix A: President of School Email about Recruitment

Principal Investigator: Dr. Chris Unger  
Student Researcher: Handel Fraser

Title of Project: Education Entrepreneurship: How Do Leaders in Three Community Colleges Foster and Support Innovation & Entrepreneurship

Dear President of School,

My name is Handel Fraser, and I am reaching out to discuss a research study as part of my doctorate program at Northeastern University. The research project is a qualitative case study interviewing three community college presidents, along with administrators, faculty, and staff. The study is about examining how community college presidents and other leaders of the community college can foster and support innovation in their college. Your college was chosen partly by its affiliation and as a reward recipient of the National Association for Community College Entrepreneurship (NACCE).

The data collection process is expected to begin soon, which involves a 45-50-minute interview with you and 35-45-minute with administrators and faculty members of your choosing. These sessions can be scheduled during the school day or after school based on the ability of your staff and faculty. I am writing to obtain permission for your school to be a part of my research study.

If you are interested in participating in the study, please respond as soon possible that you can do so. Also, I would like to ask for permission to send email messages to the administrators, staff, and faculty members who you identify that would be able to reflect on your role fostering and supporting innovation. I have attached a copy of this letter to this email for your review and approval. I would also like to ask if you or your assistant would be willing to distribute this letter to the intended staff and faculty digitally.

If you agree to voluntarily participate, we will discuss the purpose of the study, expectations of participants, and review and sign the informed consent form prior to the start of the interview. Potential participants, such as yourself, will only be contacted one time regarding this research. There will be no follow-up. Participation for you and all potential participants is voluntary.

I have obtained IRB approval from Northeastern University. With your permission, I will move ahead and contact participants. Thank you for your time and your assistance in this research study. If you have any questions, please contact me at fraser.ha@husky.neu.edu.

Sincerely,
Handel Fraser  
Student Researcher & Northeastern Doctoral Student
Appendix B: Administrators, Faculty, and Staff Email about Recruitment

Principal Investigator: Dr. Chris Unger
Student Researcher: Handel Fraser

Title of Project: Education Entrepreneurship: How Do Leaders in Three Community Colleges Foster and Support Innovation & Entrepreneurship

Dear Administrator, Faculty or Staff Member,

My name is Handel Fraser, and I am reaching out to discuss a research study as part of my doctorate program at Northeastern University. The research project is a qualitative case study interviewing three community college presidents along with administrators, faculty, and staff. The study is about examining how community college presidents and other leaders of the community college can foster and support innovation in their college. Your college was chosen partly by its affiliation and as a reward recipient of the National Association for Community College Entrepreneurship (NACCE).

The data collection process is expected to begin soon, which involves a 35-45-minute interview with you. The President recommended you as someone that could speak to the innovation and entrepreneurial activities at your school. Hence, this meeting is to ascertain your thoughts and impressions about how the president of your school foster and support innovation at your college. These sessions can be scheduled during the school day or after school based on your availability. I am writing to obtain permission from you to be a part of my research study.

If you agree to voluntarily participate, we will discuss the purpose of the study, expectations of participants, and review and sign the informed consent form prior to the start of the interview. There is no pressure for you to participate, and you may withdraw from the study at any time. Potential participants, such as yourself, will only be contacted one time regarding this research. There will be no follow-up. Participation is voluntary.

Thank you for your time and your assistance in this research study. If you have any questions, please contact me at fraser.ha@husky.neu.edu.

Sincerely,
Handel Fraser
Student Researcher & Northeastern Doctoral Student
Appendix C: Signed Informed Consent Form for President Interviews

Principal Investigator: Dr. Chris Unger
Student Researcher: Handel Fraser

Northeastern University, College of Professional Studies

Title of Project: Education Entrepreneurship: How Do Leaders in Three Community Colleges Foster and Support Innovation & Entrepreneurship

Signed Informed Consent Form

Why am I being asked to take part in this research study?
You are being asked to participate because of your experience supporting and fostering innovation at your school.

Why is this research study being done?
The purpose of this study is to identify how leaders of school think about their roles as instructional leaders to foster and support innovation in their schools. Through a multiple case study model, interviews, and document reviews will be conducted with heads of school, administrators, and faculty members. This interview will lead to the understanding of what leadership strategies, structures, and use of resources support innovation in schools, as presented by heads of independent schools, administrators, and faculty.

What will I be asked to do?
The researcher will be looking for you to participate in an individual interview. Your participation is voluntary, and you can opt out at any time.

Where will this take place and how much time will it take?
Individual interviews will take approximately 45-50 minutes. Interviews will take place in a conference room at your school at a convenient time for participants. The leader of the college will also be asked to check the interview transcript for any errors following the interviews.

Will there be any risk or discomfort to me?
There are no significant risks involved in being a participant in this study.

Will I benefit by being in this research?
Benefits will include the opportunity for site participants to reflect on how school leaders foster and support innovation. This research could assist other school leaders in their work to increase innovation in their schools.

Who will see the information about me?
Your part in the study will be completely confidential. Pseudonyms will be used for all study participants. Only the researcher will be aware of the participants' identities. No reports or publications will use information that can identify you in any way.
As an interviewee, your part will be confidential. The data collected for this study will be kept by
the researcher, including audio tapes, and will not be shared with others. All audio tapes will be
destroyed following transcription.

In rare instances, authorized people may request to see research information about you and other
people in this study. This consent form is done only to be sure that the research is done properly.
The researcher would only permit people who are authorized by organizations such as
Northeastern University to see this information. No identifying information will ever be shared
with people at your school.

If I do not want to take part in the study, what choices do I have?
You are not required to take part in this study. If you do not want to participate, you do not have
to sign this form.

What will happen if I suffer any harm from this research?
There are no significant risks involved in being a participant in this study.

Can I stop my participation in this study?
Participation in this study is voluntary, and your participation or non-participation will not in any
way affect other relationships (e.g., employer, school, etc.). You may discontinue your
participation in this research program at any time without penalty or costs of any nature,
character, or kind.

Who can I contact about my rights as a participant?
If you have any questions about your rights in this research, you may contact Nan C. Regina,
Director, Human Subject Research Protection, 490 Renaissance Park, Northeastern University,
Boston, MA 02115. Tel: 617-373-4588, Email: n.regina@neu.edu. You may call anonymously if
you wish.

Will I be paid for my participation?
There is no compensation for participation in this study.

Will it cost me anything to participate?
There is no cost to participate in this study.

I have read, understood, and had the opportunity to ask questions regarding this consent form. I
fully understand the nature and character of my involvement in this research program as a
participant and the potential risks. I agree to participate in this study on a voluntary basis.

Research Participant Signature_____________________________________________________

Research Participant Name___________________________________  Date______________
Appendix D: Signed Informed Consent Form for Administration, Faculty, and Staff Interviews

Principal Investigator: Dr. Chris Unger
Student Researcher: Handel Fraser

Northeastern University, College of Professional Studies

Title of Project: Education Entrepreneurship: How Do Leaders in Three Community Colleges Foster and Support Innovation & Entrepreneurship

Welcome to the interview on “Education Entrepreneurship.” Before moving ahead with the interview, please read the consent form below and sign the bottom of the page if you understand the statements and freely consent to participate in the study.

Signed Informed Consent Form

Why am I being asked to take part in this research study?
You are being asked to participate since the president of the school identified you as one of the individuals involved with innovation at your school.

Why is this research study being done?
The purpose of this study is to identify how heads of school think about their roles as instructional leaders to foster and support innovation in their schools. Through a multiple case study model, interviews, and document reviews will be conducted with heads of school, administrators, and faculty members. This interview will lead to the understanding of what leadership strategies, structures, and use of resources support innovation in schools, as presented by heads of independent schools, administrators, and faculty.

What will I be asked to do?
The researcher will be looking for you to participate in an interview. Your participation is voluntary, and you can opt out at any time.

Where will this take place and how much time will it take?
Interviews will take approximately 35-45 minutes. Interview will take place in a conference room at your school at a convenient time for participants.

Will there be any risk or discomfort to me?
There are no significant risks involved in being a participant in this study.

Will I benefit by being in this research?
Benefits will include the opportunity for site participants to reflect on how school leaders foster and support innovation. This research could assist other school leaders in their work to increase innovation in their schools.
Who will see the information about me?
Your part in the study will be completely confidential. Pseudonyms will be used for all study participants. Only the researcher will be aware of the participants' identities. No reports or publications will use information that can identify you in any way.

As a participant, your part will be confidential. The data collected for this study will be kept by the researcher, including audio tapes, and will not be shared with others. Only first names will be used during interviews and in transcriptions. False names will be used in reports related to interviews. All audio tapes will be destroyed following transcription.

In rare instances, authorized people may request to see research information about you and other people in this study. This consent form is done only to be sure that the research is done properly. The researcher would only permit people who are authorized by organizations such as Northeastern University to see this information. No identifying information will ever be shared with people at your school.

If I do not want to take part in the study, what choices do I have?
You are not required to take part in this study. If you do not want to participate, you do not have to sign this form.

What will happen if I suffer any harm from this research?
There are no significant risks involved in being a participant in this study.

Can I stop my participation in this study?
Participation in this study is voluntary, and your participation or non-participation will not in any way affect other relationships (e.g., employer, school, etc.). You may discontinue your participation in this research program at any time without penalty or costs of any nature, character, or kind.

Who can I contact about my rights as a participant?
If you have any questions about your rights in this research, you may contact Nan C. Regina, Director, Human Subject Research Protection, 490 Renaissance Park, Northeastern University, Boston, MA 02115. Tel: 617-373-4588, Email: n.regina@neu.edu. You may call anonymously if you wish. Will I be paid for my participation?
There is no compensation for participation in this study.

Will it cost me anything to participate?
There is no cost to participate in this study.

I have read, understood, and had the opportunity to ask questions regarding this consent form. I fully understand the nature and character of my involvement in this research program as a participant and the potential risks. I agree to participate in this study on a voluntary basis.
Appendix E: President Interview Guide

Thank you for your interest in participating in my research. Before we begin the interview, please review the consent form and sign it if you agree to participate. The consent form provides a short overview of the study and the interview process. The consent form outlines what I will do to protect confidentiality. Please review the consent form carefully to make sure you are comfortable with everything detailed on the form.

Since this study is meant to learn about what you have done to support innovation, please provide honest responses based on your experiences. Since I will be recording the interview, please do your best to speak clearly.

We will begin the interview in a few minutes. This process will take between 45 and 50 minutes. I will ask that you share your experiences while working at this school. I encourage you to speak openly about the questions. There is no time limit for specific questions, so it is okay to go into detail with your responses.

The first few interview questions will be demographic questions, and then we will proceed to in-depth questions.

Do you have any questions before we begin the interview?

Descriptive Information
- As the President of your Community College, how would you describe your responsibility and role here?
- How long have you been here?
- Where were you before coming here and what did you do?

The focus of my study is on how a community college can think and act entrepreneurially and how leaders of a community college can foster and support entrepreneurial activity in a community college. Your college has been identified as being entrepreneurial.

1. Do you consider your college to be entrepreneurial? And how so?
   - Can you give me some examples – 3 to 4 examples?

2. How do you see your role in fostering and supporting entrepreneurial activity in your college?
   - Could you give me 2 or 3 examples of how you have done that and/or are doing that?

Now I want to spend some time talking about the approaches used to foster and support such entrepreneurial activities. And your role in the school’s efforts to pursue or not pursue innovation at your school. Let’s start first with a (wink-wink) easy question:

3. What are the two or three most important ways of thinking, leading, or working at a community college for it be entrepreneurial? Examples and why it is important?
4. To what degree do you think collaboration is important for the college to be entrepreneurial? What kind of collaboration? Who is collaborating? Do you think there is something that you do to ensure that the kind of collaboration that needs to happen is happening so that the college can be entrepreneurial?

5. Can you speak to the importance of looking for either internal and/or external opportunities to be entrepreneurial? How important is it to look at external and/or internal opportunities to be entrepreneurial? Can you give me some examples of how the college has taken advantage of some internal and/or external opportunities to be entrepreneurial?

6. How important is it to consider the degree to which the entrepreneurial activity will be revenue generation? Could you provide examples?

7. What advice would you have for other community college presidents on how to effectively foster and support entrepreneurial activity in their schools?
   - Where should they begin if the entrepreneurial activity is not a priority within their school?
   - What is the role of the leader in this work? Of others?

8. Is there anything else you would share about your work at your school in support of innovation?
Appendix F: Interview Guide with Provost/Dean/Director/Administrator/Faculty

Thank you for your interest in participating in my research. Before we begin the interview, please review the consent form and sign if you agree to participate. The consent form provides a short overview of the study and the interview process. The consent form outlines what I will do to protect confidentiality. Please review the consent form carefully to make sure you are comfortable with everything detailed on the form.

Since this study is meant to learn about what leaders in your school have done to support innovation, please provide honest responses based on your experiences. Since I will be recording the interview, please do your best to speak clearly and to take turns speaking during the discussion. Since there will be a range of responses during the interview, it will be important to respect the responses of others.

We will begin the interview in a few minutes. This process will take between 35 and 45 minutes. I will ask that you share your experiences while working at this school. My role is to facilitate the discussion. I encourage everyone to speak openly about the questions. There is no time limit for specific questions, so it is fine to go into detail with your responses.

The first few questions of the interview will be demographic questions. During these questions, I will ask participants to answer individually in a circle. We will then proceed to in-depth questions and more of a discussion among peers.

Are there any questions before we begin the interview?

Descriptive Information
- Tell me about your position, role, and responsibilities here in the community college
- How long have you been here?
- Where were you before coming here and what did you do?

The focus of my study is on how a community college can think and act entrepreneurially and how leaders of a community college can foster and support entrepreneurial activity in a community college. Your college has been identified as being entrepreneurial.

1. Do you consider your college to be entrepreneurial? And how so?
   - Can you give me 2-3 examples?

2. How do you see your role in fostering and supporting entrepreneurial activity in your college, if at all?
   - Could you give me 2 or 3 examples of how you have done that and/or are doing that?

Now I want to spend some time talking about the approaches used to foster and support such entrepreneurial activities. And your role in the school’s efforts to pursue or not pursue innovation at your school. Let’s start first with a (wink-wink) easy question:
3. What are the two or three most important ways of thinking, leading, or working at a community college for it to be entrepreneurial? Examples and why it is important?

4. To what degree do you think collaboration is important for the college to be entrepreneurial? What kind of collaboration? Who is collaborating? Do you think there is something that you do to ensure that the kind of collaboration that needs to happen is happening so that the college can be entrepreneurial?

5. Can you speak to the importance of looking for either internal and/or external opportunities to be entrepreneurial? How important is it to look at external and/or internal opportunities to be entrepreneurial? Can you give me some examples of how the college has taken advantage of some internal and/or external opportunities to be entrepreneurial?

6. How important is it to consider the degree to which the entrepreneurial activity will be revenue generation? Could you provide examples?

7. What advice would you have for other community colleges how to effectively foster and support entrepreneurial activity in their schools?
   - Where should they begin if the entrepreneurial activity is not a priority within their school?
   - What is the role of others in this work?

8. Very important now … What do you think is most important for a community college president to do to support and foster entrepreneurial activity in a community college?

9. Is there anything else you would share about your work at your school in support of innovation?
### Appendix G

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<th>Interview Question</th>
<th>University Leaders</th>
<th>Theme</th>
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<tr>
<td>Do you consider your college to be entrepreneurial?</td>
<td>has always been very entrepreneurial, from our performing arts program to our recent building of our STEM wing, to our simulator, and then obviously the Pappajohn Center, I think we are very entrepreneurial in nature in how we respond to our community's needs, as well as our students’ needs as well</td>
<td>Entrepreneurial activities are instrumental in serving its community as were revealed by the community college leaders</td>
</tr>
<tr>
<td>How do you see your role in fostering and supporting entrepreneurial activity in your college, if at all?</td>
<td>I think it's essential. I currently serve as a executive officer of the National Association of Community College entrepreneurs. I'm on the NACCE board. I'm secretary and treasurer right now. It's something that we do. So I'm committed to it.</td>
<td>College leaders find fostering and supporting entrepreneurial activities as very important to institutional sustainability.</td>
</tr>
<tr>
<td>What are the two or three most important ways of thinking, leading, or working at a community college for it be entrepreneurial?</td>
<td>Well, I think you have to have a little bit of entrepreneurial spirit yourself to begin with. We're very willing to step out, and if we try something and to doesn't work, okay, we'll move onto the next thing. We'll recreate something else and move forward. So, I think you have to be able to be a risk taker, and be able to fall on your but, and get back up and brush off and do it again.</td>
<td>The college leaders agreed that developing and implementing sustainable entrepreneurial structures and strategies underpins the entrepreneurial and innovation ecosystem</td>
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To what degree do you think collaboration is important for the college to be entrepreneurial?

Because Michigan is not a system, in fact we’re fiercely independent. We don’t collaborate well with the universities, and they don’t collaborate well with us, and we miss a ton of mutually beneficial experiences as a result of that. That’s unfortunate.

Internal and external collaboration noted by college leaders as fundamental aspects for allowing entrepreneurialism to thrive.

Can you speak to the importance of looking for either internal and/or external opportunities to be entrepreneurial?

Either they deliver a program, or they invest in you, or you co-create something with them, or you have some kind of shared metric you’re trying to work against. Community college cannot live in isolation. Entrepreneurship cannot live in isolation, because we’re generalists.

All community college leaders believed that business development is essential for supporting and sustaining entrepreneurial activities.

How important is it to consider the degree to which the entrepreneurial activity will be revenue generation?

We need to generate some revenue through our center just to support the good work they’ve done for 25 years, okay? So some of their work is going to have to be going out and finding support of the work they do from communities, counties, public entities.

The community college leaders specified that reduced grants and government funding are forcing entrepreneurial activities.
What advice would you have for other community colleges how to effectively foster and support entrepreneurial activity in their schools?

shortly after I arrived, I got invited to join NACCE. And honestly, I didn't have a lot of experience with entrepreneurial education or entrepreneurial leadership. But what NACCE has done for me is it's surrounded me with some of the most entrepreneurial presidents in the country.

The leaders of College B indicated that shared governance is vital for an organizational change.

Very important now ... What do you think is most important for a community college president to do to support and foster entrepreneurial activity in a community college?

If they don't have that vision, or they're not good at articulating what that vision is, that people don't necessarily see the connection as to why do I have to do all of these entrepreneurial activities.

The community college leaders specified that reduced grants and government funding are forcing entrepreneurial activities.

Is there anything else you would share about your work at your school in support of innovation?

We engaged with Saul Kaplan who leads a group called the business innovation factory. I mean, BIF, that's what it's called. And he helped us actually develop this footprint expansion.

Community college leaders proposed entrepreneurial academic programming as a vital criterion for training future entrepreneurs.
Appendix H

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